

college

AND UNIVERSITY

business

APRIL 1960

American College President Visits Russia

The president of the University of Akron reports on his 15,000 mile tour to visit seven Soviet universities . . . 41

Seven Secrets of Fund Raising

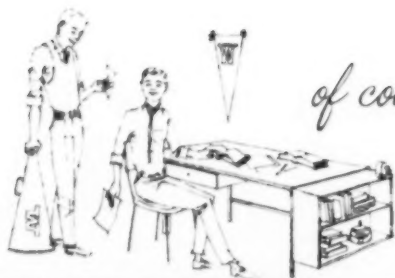
A college executive stresses the one principle that is basic if fund solicitation is to be effective 54

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BELL TOWER OF IVAN THE TERRIBLE IN THE KREMLIN, MOSCOW (p. 41)



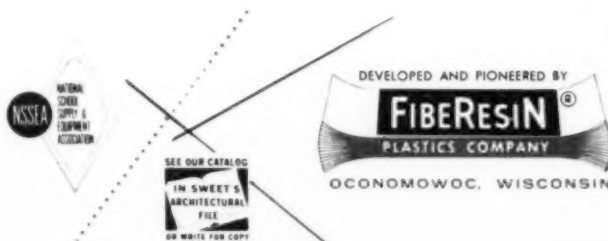


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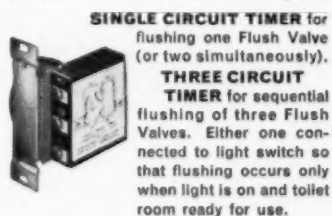
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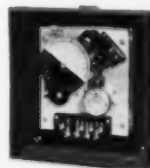


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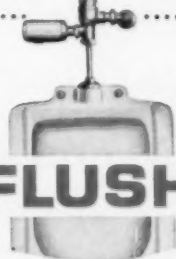
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AMONG THE AUTHORS: A second trip to Russia gave Dr. Norman P. Auburn, University of Akron president, an opportunity to make a careful comparison between American colleges and institutions of higher education in Russia. Dr. Auburn, formerly vice president of the University of Cincinnati and interim president for the Council for Financial Aid to Education, brings a wide background of administrative experience to bear on his analysis of two completely different systems of higher education. . . . The recruiting of qualified personnel for higher education administration has been a rather hit-and-miss process. Orie E. Myers Jr., director of personnel at Emory University, and Donald E. Dickason, executive director of the College and University Personnel Association, report on their organized program for recruiting personnel for administrative positions.



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QUESTIONS AND ANSWERS

Centralized Steno Bureau

Question: Does a centralized stenographic and duplicating service bureau tend to increase or decrease institutional efficiency? What happens to costs? — M. B., Minn.

ANSWER: This question, like so many questions of management, is one that cannot be answered in absolutes. In general, centralization of any service function tends to increase quality and efficiency, but at the same time creates problems of transportation and loss of time.

The well managed centralized stenographic and duplicating service can bring substantial savings to the institution. These come from more efficient use of materials and the higher levels of machine operator training that are possible when fewer operators need to be trained. In addition, the need for machines is greatly reduced, since they need not be duplicated from department to department.

On the other hand, faculty members and staff employees must deliver materials to the stenographic service center or there must be a delivery service made available for this purpose. This cost is unnecessary if each department does its own duplicating.

Another problem is that peak loads on a college campus usually take place at the same time in almost all departments. Thus, at registration and at examination time, the stenographic bureau is overloaded, yet there may be times when there is not enough work to keep machines and operators busy. Although the situation is the same when there is no centralized service, the costs are not so evident, since secretaries and clerks appear to be busy in the various departments whether or not they are really performing productive work. This fact may tend to distort a comparison of the relative costs of centralization and decentralization.

Complaints often are heard from faculty members that a central duplicating service causes serious delays. It is essential that all jobs accepted by a central duplicating service be completed and delivered on time. Anything less than this will create extremely bad feeling and is completely indefensible. One solution to this problem is to permit educational

departments to buy and use hand-operated liquid process duplicators. These can be used for short-run jobs, such as examinations and internal memorandums. Costs for the machines and supplies are comparatively small, and any secretary or faculty member can do a creditable job of duplicating with little training or experience. Larger projects and those with longer runs would of course be done by the central duplicating service. Decision as to whether this is an appropriate answer in a given situation would depend upon the size of the campus and the efficiency of delivery service.

Costs of a central bureau may be handled in either of two ways. Probably the commonest method is to establish a line item budget for the stenographic service bureau. While this may facilitate budget control, it removes budget responsibility from the department chairmen and deans, who usually demand more and more services yet do not provide increased budgets to support this service.

Better control is provided if the service bureau is budgeted as a self-sustaining service enterprise. In this approach, charges are made for each job done, and departmental budgets "pay" for services rendered. Thus, if a given department needs more services, it must provide for them out of its own budget. Therefore, responsibility for costs is lodged in the same person who decides on the value of the work done.

Another gain from this budget method is that departments will naturally keep a close watch on charges of the service bureau. If these charges exceed the costs of work done by commercial firms, this is an emphatic reminder that the service bureau needs an administrative or procedural overhaul.

In summary, it might be said that the central stenographic and duplicating service should result in savings to the institution, but only if it is well managed and businesslike. At no time should the doctrine of centralization be permitted to impede the educational purposes of the institution by causing unjustifiable delays and inconveniences. — BRUCE PARTRIDGE, *business administrator, University of Delaware, Newark.*



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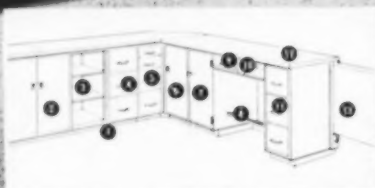
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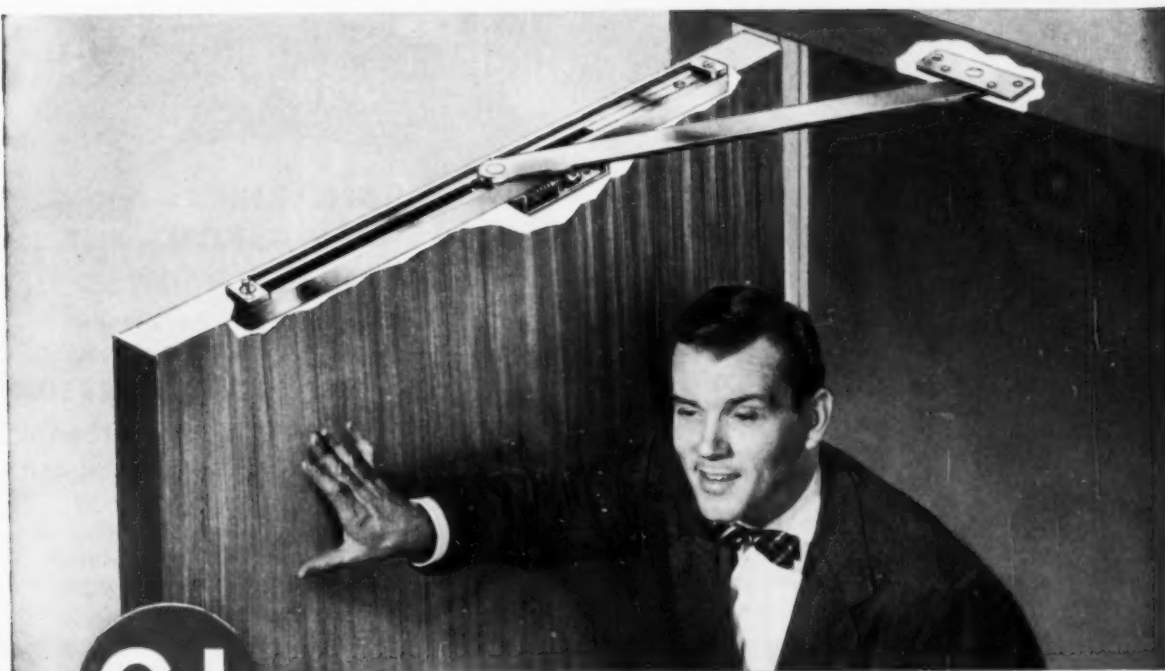


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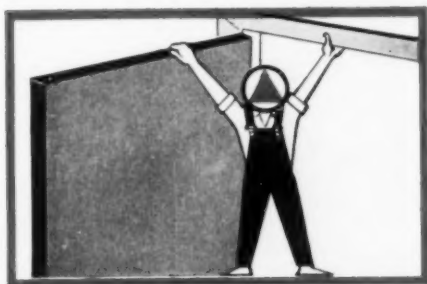
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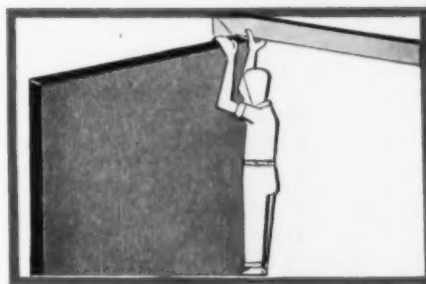
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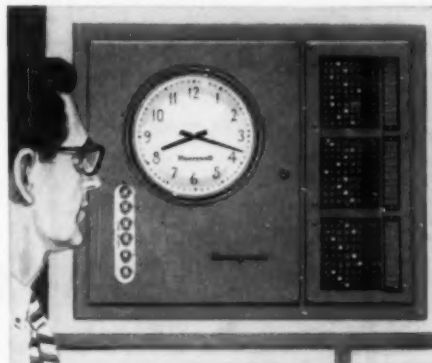
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Honeywell



First in Control
SINCE 1885

75th
YEARS
PIONEERING THE FUTURE



See it at Booth 8 and 9



Styled for lasting beauty...built to last a lifetime

HARD'S DORM-DUET ROOM GROUP

SHOWN ABOVE

6853-A Desk—Top 21" x 44"

1625-FL Bed—36" x 76"

(Also available with NS-4 Spring)

2133 Nite Stand—Top 16" x 16"

5543 Four-Drawer Chest—Top 19" x 32"

7294 Side Chair

7340-P Easy Chair

Available in a variety of
color combinations

Rarely seen together are the graceful design and rugged construction of Hard's new Room Group

for Dormitories. Famous Hard Life-Long Metal Construction makes the combination possible — and at

prices that make it a reality for your furnishing plans.

Available on contract to members of the
Educational and Institutional Cooperative Service Inc.,
1461 Franklin Ave., Garden City, Long Island, N.Y.

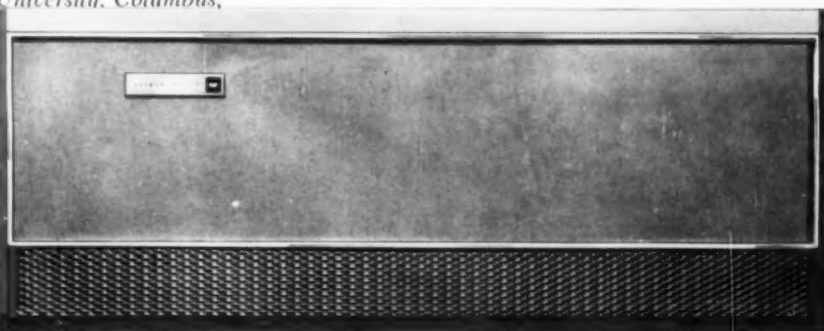
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MANUFACTURING COMPANY BUFFALO 7, NEW YORK

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NEW,

architecturally styled *hermel-cool III* classroom unit ventilator!



463 schools have installed Herman Nelson "now or later" air conditioning

Advanced architectural styling, accented by six exciting decorator colors—these are the striking new features of Herman Nelson HerNel-Cool III unit ventilators.

And a special "flared" fan housing design "hushes" air discharge sounds to a whisper... makes unit operation 50% quieter than any other unit ventilator or air delivery system.

HerNel-Cool unit ventilators have now been installed in 463 schools all over the country, including scores of colleges and universities (some of which are listed above). HerNel-Cool units func-

tion now as standard unit ventilators—heating, ventilating and cooling (with outdoor air) when required. But piping, pipe insulation, condensate drainage system and control system are sized and engineered for air conditioning.

In most areas the cost of installing a HerNel-Cool system is in the same range as systems *not* adaptable to air conditioning! And when you decide to switch to year-round air conditioning, it's simply a matter of installing a packaged liquid chiller in the boiler room, at an estimated cost of about 55¢—or about $\frac{1}{2}$ the cost of installing the lowest-cost air conditioning system.

At this price, can you afford *not* to provide for air conditioning?



Send for your **FREE**
Herman Nelson FACT KIT
on school air conditioning

herman nelson

SCHOOL AIR SYSTEMS DIVISION OF

AAF American Air Filter
COMPANY, INC., LOUISVILLE, KENTUCKY

THE HEYWOOD



LINE

featuring

**FLEXIBILITY, DESIGN,
STYLE, COLOR *plus*
RUGGED DURABILITY IN
A WIDE VARIETY OF
FINE SCHOOL FURNITURE**

Flexibility! What are your needs or preferences in top-quality school furniture? Whatever these may be, THE HEYWOOD LINE meets your individual, specific requirements. In desks, chairs, combination units, tablet arm models, specialty pieces, and all other types of school furniture, THE HEYWOOD LINE offers you an infinite variety of styles, designs, materials, colors, to best suit your needs.

Featured in THE HEYWOOD LINE of school furniture is the exclusive and patented solid plastic, called HeyWoodite. This new and proven material won't stain, won't burn, won't break . . . and requires no maintenance, no refinishing, no repairs. Whether you buy THE HEYWOOD LINE in solid wood, plywood, laminated plastics, or HeyWoodite solid plastic, you have the positive assurance that you could not possibly have made a better choice. For new school furniture, or replacement units, call on Heywood-Wakefield, famous for fine furniture for 135 years!

HEYWOOD - WAKEFIELD
School Furniture Division

MENOMINEE, MICHIGAN • GARDNER, MASSACHUSETTS
NEWPORT, TENNESSEE



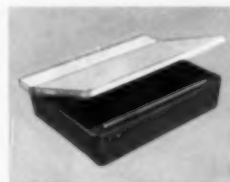
Seats and backs are available in solid, kiln-dried hardwoods for long wear. In attractive natural finish, seats and backs are shaped and saddled for utmost comfort. Scientific ratio of pitch meets good posture standards.



Seats and backs in Heywood's exclusive solid plastic, called HeyWoodite, require no maintenance. The colors run all the way through. Seats and backs are molded, shaped, and saddled for best seating posture. No other material can outwear HeyWoodite in seats, backs, desk tops, and tablet arms.



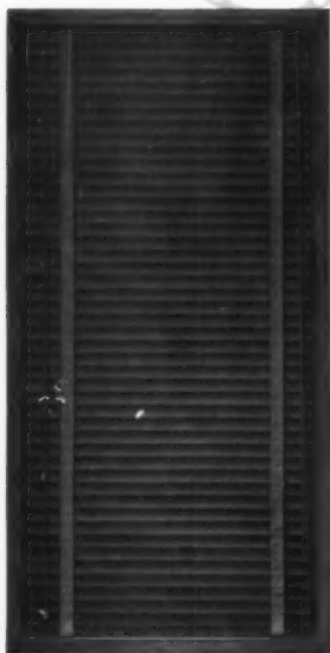
One-piece lifting lid of exclusive HeyWoodite. Heywood-Wakefield's patented solid plastic that is virtually indestructible. Made in four smart school colors. Top opens and closes silently on completely enclosed friction hinges.



The laminated lifting lid desk top has a solid hardwood core to assure a permanent bond between the plastic surface and the center solid wood. The large size, long-wearing laminated top operates on completely enclosed, silent action, friction hinges. The bookbox is made of heavy-gauge steel.

ARE YOUR WINDOWS AS MODERN AS YOUR METHODS?

Audio-Visual teaching makes your coverings out of date unless...



**THEY MAKE ANY ROOM BLACK-OUT
DARK IN SECONDS...EVEN AT NOON!**



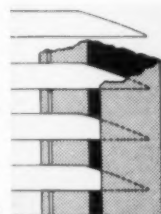
**YET GIVE AN INFINITE
RANGE OF LIGHT CONTROL!**



**AND COST LITTLE TO START
WITH...LESS TO MAINTAIN!**

Sure, black-out coverings get the room dark. But they don't cut down on glare. *Sure*, conventional coverings control daylight. But they don't achieve an effective black-out. That's why both are as out of date as a one-room school! Only Flexalum Audio-Visual blinds can give you the precise light control you need for everyday class activities...and *also* plunge the room into absolute darkness for Audio-Visual teaching. Reasons: Flexalum is made with more slats, which means greater overlap—plus special light channels which keep light out around the sides. All this and you *save*, too. Because Flexalum also gives more years of service than any other type of window covering...*a promise ice back with a five-year written guarantee*. Look into Flexalum for your school.

Write for test results and specification data to: Bridgeport Brass Co.—Hunter Douglas Division, 405 Lexington Ave., New York 17, N. Y.



Newest Flexalum exclusive:
plastic-lined side-channels
eliminate noisy "flutter"

AUDIO-VISUAL BLINDS
Flexalum®

You can prevent many colds with Antiseptic HUNTOLENE® !

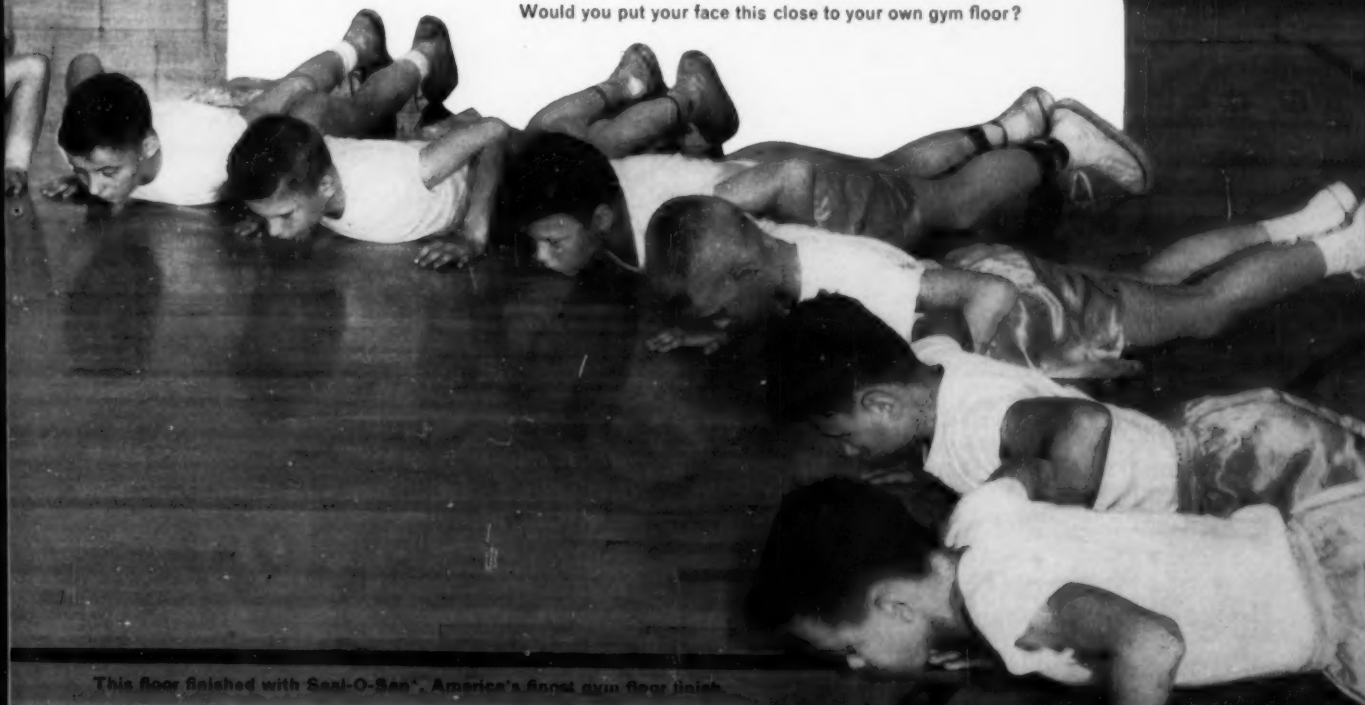
Floors are germ traps. Disease bacteria are constantly settling to the floor where they multiply rapidly, *unless inhibited*. You can do much to reduce this health hazard with the dust mops now used to "clean" your floors, simply by spraying Huntolene Antiseptic Dust Control on the mopheads. Huntolene inhibits germ growth, slows or stops their multiplication, even protects the maintenance man by killing bacteria in the mop.

Tests in our files conclusively prove these benefits. Ask your Huntington representative about this unusual, low cost product which does so much to protect health. *Huntington Laboratories, Huntington, Indiana, Philadelphia 35, In Canada: Toronto 2.*



Huntolene Antiseptic Dust Control has been rated for safety by Underwriters' Laboratories regarding flammability.

Would you put your face this close to your own gym floor?



This floor finished with Seal-O-Seal, America's finest gym floor finish.

HUNTINGTON

... where research leads to better products

First in **NEW** Clean-line Design
... Full-Power Performance

TOLEDO 60 qt. MIXERS

Here's proof that more worthwhile advancements in kitchen machines are coming from Toledo.

Ruggedly-built and powered to make short work of mixing jobs, new Toledo 60 qt. mixers offer a galaxy of features to save time and labor in your busy kitchen operations.

Rigid construction keeps all parts in perfect alignment for the smoothest, quietest operation you've ever known. A floodlight above mixer bowl helps operator see when mix is finished. There are four speeds, and controls are conveniently grouped. No gear clashing, as speed control levers are also the start-stop controls for positive operation.

Model TM-60PT features Power Bowl Lift and Automatic Timer. Model TM-60 has manually operated bowl lift. A wide choice of beaters, whips, accessories and attachments is available to meet your needs exactly. Auxiliary power socket for attachments is standard. SEND NOW for bulletin SD-178 with complete details.



Model TM-60 with "clean-line" design for outstanding appearance and ease of cleaning. Bowl elevator mechanism fully enclosed.

20 QT. CAPACITY ... Toledo Model TM-20 multipurpose mixer. Compact, sturdy, versatile. Full-powered performance with 1/3 HP motor and direct geared drive. Does a big variety of jobs, including mixing, beating, whipping. Accessories for meat and food chopping, slicing, juicing and knife and tool sharpening. Swivel-type bowl mount.



30 QT. CAPACITY ... Toledo Model TM-30 for heavy-duty use in kitchens and bakeries. Direct-drive 1/2 HP motor for smooth, quiet power through all three speed ranges. Convenient controls; smooth, clean-line design easy to clean and keep clean. Full choice of accessories and attachments.



TOLEDO® Kitchen Machines

Division of Toledo Scale Corporation • 245 Hollenbeck St., Rochester, N. Y.



Toledo "10" Slicer ... Combines handsome design with fast, easy operation. Easy to clean—parts tilt away or are quickly removable. Efficient sharpening. Positive gauge plate control.



Disposers ... Heavy-duty for fast, trouble-free operation. Full choice of sizes from 1/2 HP up to 3 HP available in a wide selection of cone sizes.



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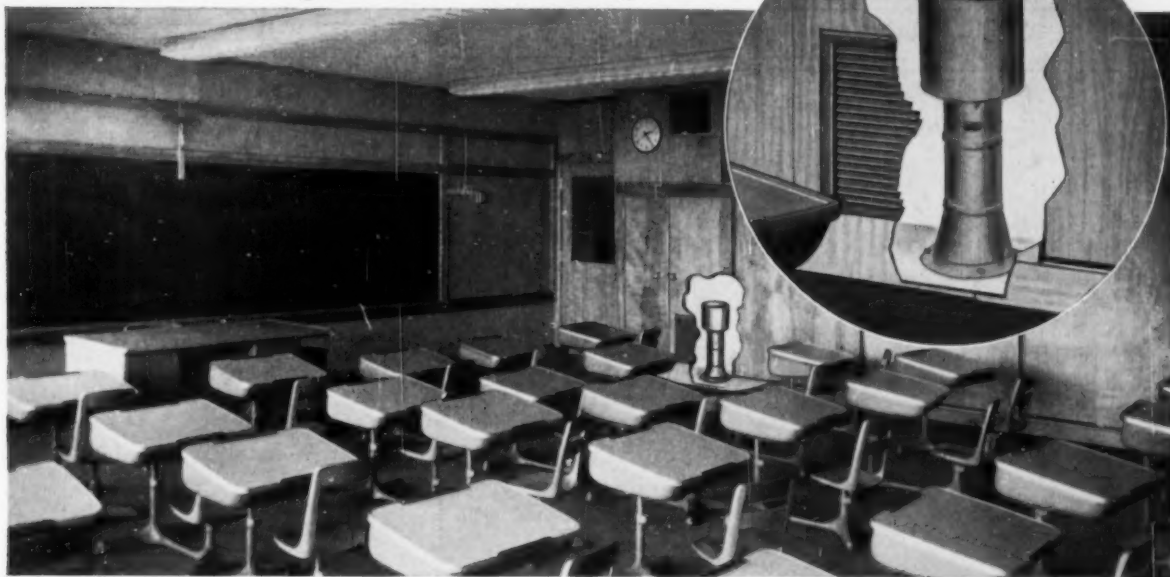
Dishwashers ... Fast, thorough, dependable. Available in door, counter, conveyor and rackless types. Advanced design, easy cleaning.



Hi-Speed Choppers ... Powerful, heavy-duty designed. Outstanding in performance and appearance. Full selection of models.

TODAY, MORE THAN EVER, IT PAYS TO GO TOLEDO ALL THE WAY!

VARI-AIR SYSTEM for schoolroom heating and ventilating



Holy Family Elementary School, Fulton, N. Y.
Pastor: Rev. Edward C. Hearn

Architect: Edward Roach, Syracuse, N. Y.
Contractor: Kenneth A. Taylor, Inc., Syracuse, N. Y.

MECHANICAL INSTALLATION @ \$1.36 per sq. ft.

Vari-Air, a "split system" which handles ventilation requirements by a separate Vari-Air unit in each room, combined with Vari-Vac automatic temperature control system, provide a dozen plus features for new schools such as Holy Family Elementary School in Fulton, N.Y.

Foremost is the achievement of satisfying a basic concern of school planners everywhere... cost, without elimination of any design requirements. Citing actual facts, not general claims:

1. At Holy Family Elementary School, heating and ventilating cost was \$1.36 per sq. ft. compared to 23,520 sq. ft. gross building area cost of \$11.59 per sq. ft. This \$1.36 figure represents considerably lower installation expense and amounts to a sizable saving on the aggregate.

Other advantages, important to school planners, include:

2. More free floor area per room.
3. Quick morning heat-up.
4. Designed percentage of fresh air to recirculated air guaranteed regardless of outside temperature change.
5. Complete flexibility of individual room temperature.
6. Elimination of classroom overheating due to student heat gain or sun heat gain.

7. Complete automatic control of heat input to schoolrooms through variation of steam temperature and volume, to agree with outside temperature change demands.

8. No down drafts from cold windows.

9. No drafts from air circulation.

10. No mechanical noise or mechanical maintenance requirements in schoolrooms.

11. Lower decorating costs through slight pressurization of buildings.

12. No technical training of maintenance personnel necessary.

Vari-Vac and Vari-Air systems, manufactured by Dunham-Bush, illustrate the advantages of a single source and delegating a single manufacturer responsibility. For instance, Dunham-Bush products at Holy Family Elementary School include: Vari-Air units; Radiation; Duplex Vacuum Pump with Differential controllers; air handling unit; Vari-Vac temperature controls; Steam Specialties including float and thermostatic traps, strainers, orifice valves, and orifice plates.

If you're planning a new school or modernization, write for full details on Vari-Air and Vari-Vac.

Only Dunham-Bush can give you the advantages of a Vari-Air system.

Dunham-Bush, Inc.

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AIR CONDITIONING • REFRIGERATION • HEATING • HEAT TRANSFER

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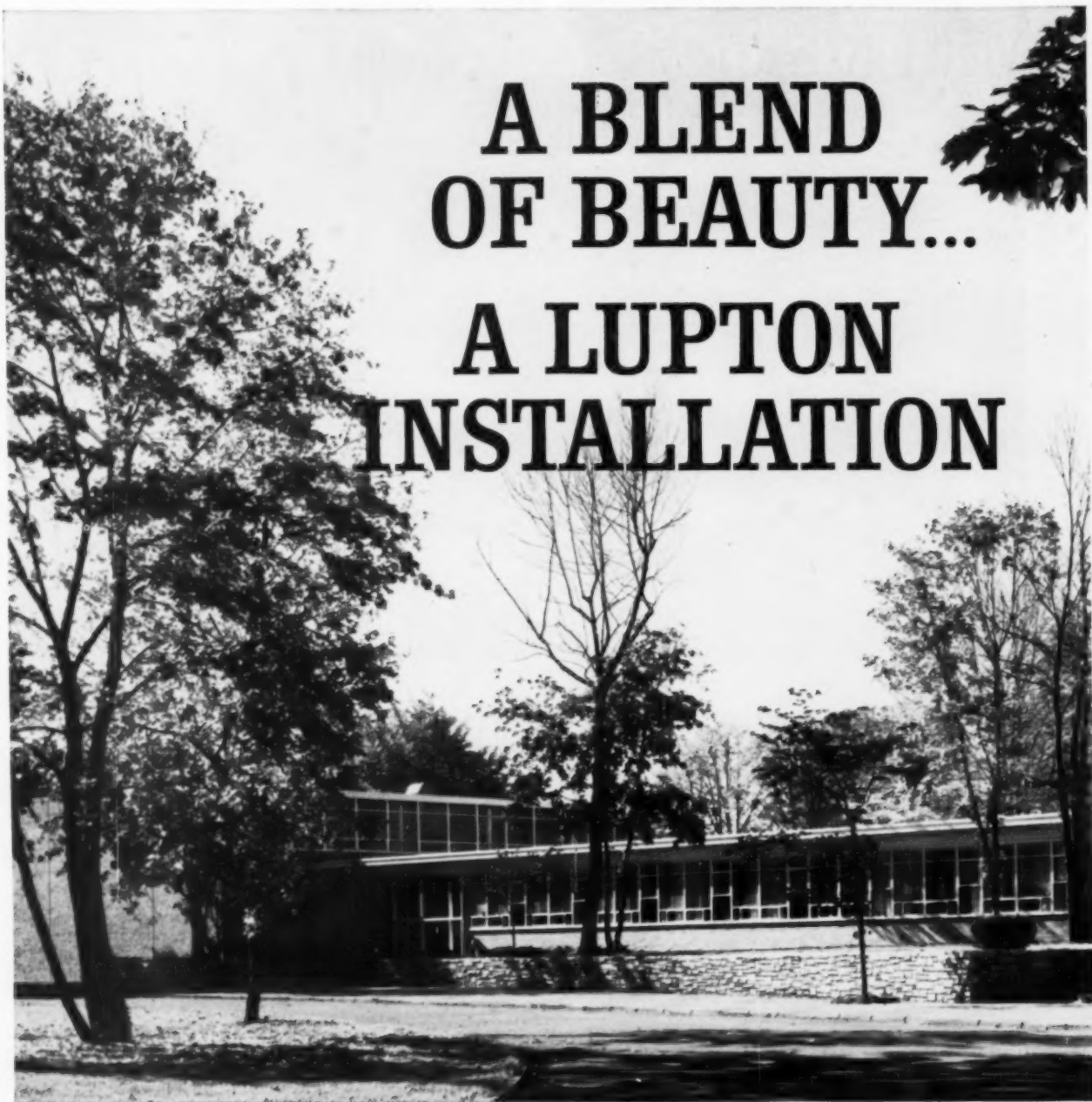
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A BLEND OF BEAUTY...

A LUPTON INSTALLATION



another school built with LUPTON Aluminum Curtain-Walls and Windows

The architects of Maria Regina High School didn't forget the trees. They blended their architecture with the natural beauty of the landscape—helped by the modern simplicity of LUPTON "Master" projected windows and aluminum curtain-wall.

Nuts-and-bolts-wise, LUPTON curtain-wall construction is simple and routinized. Tooling and all fabricating operations are standardized. It's aluminum-tough . . . lighter and slimmer. Foundations and framework costs are lowered. You get more usable floor space.

Most advantageous of all, though is LUPTON's dependability. As proven in hundreds of jobs—including one

of the largest curtain-wall installations in the world—Two Broadway, New York City—you can depend on LUPTON to meet your specifications, to deliver as scheduled. You can pinpoint responsibility, because LUPTON can do the whole job—even install!

See SWEET'S (Sections 3 and 17) for the Michael Flynn Aluminum Curtain-Wall and Window catalogs, and write for further specific information. Inquire about LUPTON Comfort-Conditioning*—the new curtain-wall system that cools, heats, and ventilates. A call to the nearest LUPTON representative (see the Yellow Pages under "Windows—Metal") will bring fast action without obligation.

*(Trade Mark)



Maria Regina High School, Hartsdale, N.Y. Architects: McCoy & Blair, White Plains, N.Y. Contractor: Frank Angelilli Construction Co., Inc., Yonkers, N.Y.

LUPTON®

METAL WINDOWS • CURTAIN-WALLS
MICHAEL FLYNN MANUFACTURING CO.

Main Office & Plant: 700 E. Godfrey Ave., Philadelphia 24, Pa. West Coast Plant: City of Industry, Calif. (Los Angeles County), Stockton, Calif., Chicago, Ill., New York, N.Y., Cincinnati, Ohio, Cleveland, Ohio, Dallas, Texas. Representatives in other principal cities.



Plenty of light and controlled air come in through LUPTON "Master" projected windows with both inward and outward opening ventilation. Easy to install, maintain, and clean.



This unsprinklered building, housing two laboratories, was completely destroyed by fire. Spontaneous combustion was the suspected cause. Loss was put at \$1,000,000.

Why it doesn't pay to experiment with Fire Safety in a college lab

The total number of school fires each year approaches 5000, or almost 13 a day. Among the most frequent places of origin are storage rooms and unused areas; classrooms; auditorium and stage; furnace rooms and laboratories. They start most often through faulty electrical wiring; heating and cooking equipment; smoking and matches; spontaneous combustion.

YOUR SCHOOL CAN BE PROTECTED AGAINST FIRE. Grinnell Automatic Sprinklers stand ready to stop fire — and its threat to life and property — any time, any place. According to records maintained by the National Fire Protection Association (a non-profit, educational organization) there has never been a loss-of-life fire in a school building completely protected by automatic sprinklers.

TYPICAL CASE HISTORIES. MAY 25, 1956 — Children playing with matches started a

fire in the Roosevelt High School in Utica, New York. The flames, which spread across joists and sub-flooring, were extinguished by automatic sprinklers.

DECEMBER 6, 1956 — In a large grammar school . . . when the latch on a boiler door failed to hold, hot gases from the flames caused a sprinkler to go into action before any combustible material was ignited.

THE COST OF FIRE VERSUS THE COST OF SPRINKLER PROTECTION. It has been esti-

mated that the cost of installing automatic sprinklers averages between 2% and 4% of the cost of a building. But building construction costs have doubled since 1947. So it is possible to provide complete sprinkler protection for most buildings today for only a fraction of their replacement costs. Moreover, insurance premium reductions are immediate, which helps to pay for the installation.

GET A FREE ESTIMATE. Backed up by over 85 years experience in engineering, manufacturing and installing fire protection systems, our representative can offer you valuable assistance. For example, he will gladly estimate the cost of installing sprinklers in your school. There's no obligation. Get the facts today. Grinnell Company, Providence 1, Rhode Island.



GRINNELL

Manufacturing, Engineering, and Installation of Fire Protection Systems Since 1870

PALMER SPACE SAVERS

*more useable space—
no additional cost*

PALMER Dormitory Furniture is factory-built furniture—functionally planned from the ground up. PALMER'S skilled designers and engineers work in concerted effort with architects when building is still in the design stage. This assures sound, functional arrangement, eliminates expensive and extravagant oversights.

**FOR ASSISTANCE IN PLANNING
ROOM LAYOUTS WRITE DIRECTLY
TO PALMER'S ENGINEERING
STAFF, DEPT. CB 4.**

**PALMER FURNITURE CO., INC.
DENMARK, SOUTH CAROLINA**



PALMER Dormitory Furniture is specialized furniture, precision built to architects' specifications. Functional adaptations to specific rooms, specific needs. Installations supervised by factory trained personnel. Delivered installed or uninstalled F.O.B. destination or F.O.B. Denmark, S. C.

First choice of coaches

Coast to Coast!

"ALL-AMERICAN"

ATHLETIC LOCKERS!



FULLY VENTILATED . . . heavy diamond mesh on three sides for maximum air circulation . . . speeds up drying time . . . eliminates offensive locker room odors, and the need for separate drying room.

RIGID CONSTRUCTION . . . heavy gauge steel, electrically welded seams and joints . . . outlasts other lockers three to one!

THREE POINT LOCKING DEVICE . . . exclusive with "All-American" Lockers . . . provides greater strength . . . eliminates theft problems.

BAKED ENAMEL FINISH . . . any color to match customer's color sample and specifications supplied with order.

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Dept. CU, 2924 27th Ave., So., Minneapolis, Minn.

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about "All-American"
Athletic Lockers

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"All-American"
full length lockers
line the locker room
walls of Bates
College.



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"All-American"
full length lockers
are installed
back to back in
Birmingham
Public High
School.



Moorhead,
Minnesota

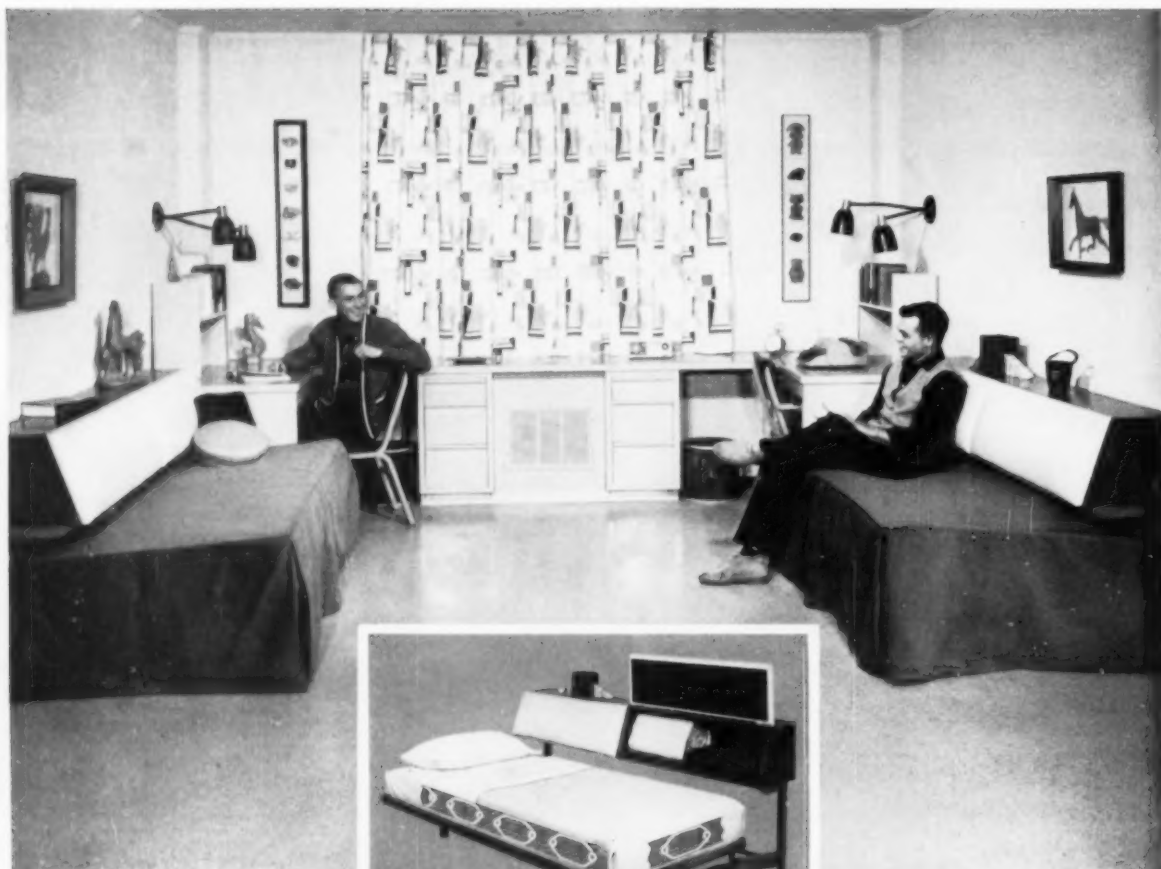
Combinations of
full length and
half length
"All-American"
Lockers used in
the Moorhead
State Teachers
College.



Kingsburg,
California

Full length
"All-American"
Seniors recently
installed in the
locker room of
Kingsbury High
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Available in built-in and free standing movable models in a wide range of prices.

this multi-purpose bed lounge saves money—saves space*

the built-in model can qualify for government loans

It's A Luxurious Lounger—The new Southern Cross Multi-Purpose Bed-Lounger is a sofa by day... a *durable* one that stands lots of sitting. The seat edge is non-sagging, because of floater springs. More comfortable with "easy chair" angle and pitch.

It's A Comfortable Bed—Pull it out and it's a level bed. You have more *usable* sleeping width too, *longer* mattress life, *more* sleeping comfort—because of the bed lounge's floater springs. Available in regular size or extra length and width.

It's A Storage Cabinet—Provides plenty of space to store pillows, blankets. Can be had with single or double storage cabinets, doors hinged top or bottom. Bolster back cushioned in foam rubber; covered in heavy-duty synthetic leather for longer wear.

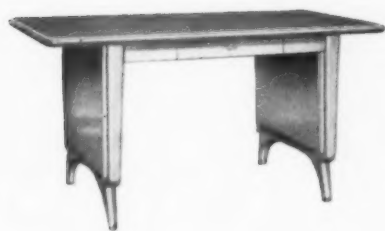
It's A Book Shelf—The new Multi-Purpose Bed-Lounger has a shelf top and can be had with book end attachments. And since the shelf extends the entire length of the Bed-Lounger, it makes a roomy holder of all sorts of things and eliminates that "cluttered room" look.

Available on contract to members of the Educational and Institutional Cooperative Service, Inc., 1461 Franklin Ave., Garden City, L.I., New York.

SOUTHERN CROSS



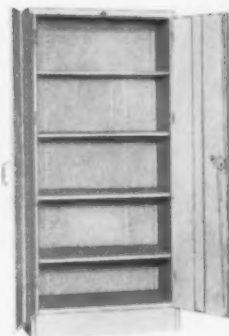
Dormitory Sleep Products, Contract Division, Southern Spring Bed Company, 290 Hunter Street S.E., Atlanta 1, Georgia. MURRAY 8-2154 *Patent applied for



No. 6276



No. 840



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No. 5401



No. 6629
with No. 835
Syncro-Tilt chair

With ASE Furniture . . .

Beauty and duty are more than skin deep

If you often buy furniture, you probably need no help in judging its appearance. But how sure are you when it comes to judging how long it will last or how well it will perform? Here are a few tips which should prove helpful.

Examine and compare the furniture itself. See that desk tops are smooth and rigid. Try the drawers for smooth, quiet action. Is the furniture carefully finished inside and out? Is it Bonderite-treated to give a permanent, protective and lustrous finish

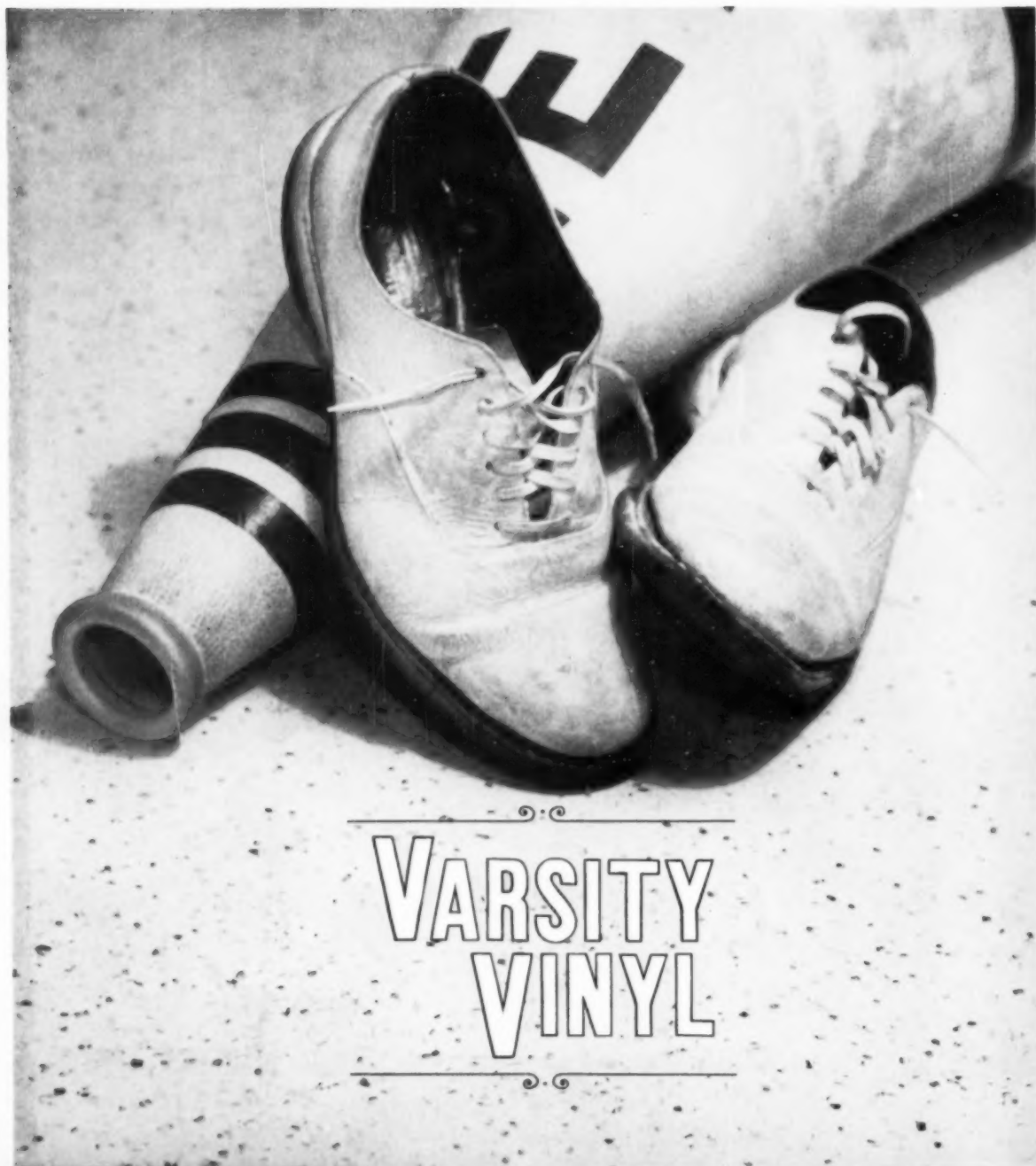
that lasts for years? These are important items which help to protect your investment.

ASE quality furniture and equipment meet all these tests. Defy rugged use. Provide comfort, efficiency and most important, a pleasing, colorful appearance.

See your ASE Dealer. He will be glad to show you the complete line of desks, chairs, files, tables, bookcases, storage cabinets and lockers; or write today for our newly illustrated ASE School Catalog.



ALL-STEEL EQUIPMENT Inc. Aurora, Illinois



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VPI
VINYL PLASTICS INC.

Flooring *summa cum laude!* VPI VINYL takes top honors for durability and good looks. TERRALAST's random chip pattern scoffs at scuffs, and its well-disciplined resiliency keeps a freshie smoothness long past graduation. Micro-squared VPI is all-vinyl, solid vinyl—no cheating allowed! **WRITE FOR FREE ILLUSTRATED LITERATURE AND SAMPLES**

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"Rugged As A Bulldog!"

...here's a duplicator
anyone can operate!



COMING SOON!

The new Heyer Conqueror Paper Folder.* Here's a folder you'll be able to load and start—then walk away! It automatically feeds any weight paper, gives all popular folds, 110 sheets a minute. Watch for its introduction!

*Hand-operated model will also be available.

Here's proof—the record of a Conqueror purchased five years ago: "Twelve teachers using our machine... never had to have instructions... thousands of sheets of paper, all grades, sizes and weights have gone through and never once did it falter. It's rugged as a bulldog!"

Now, Heyer-engineered improvements make the new Mark III Conquerors better than ever. Vastly improved Sheet Separator Fingers eliminate side rubber adjustments. New Adjustable Feed Wheels grip paper at edges for positive forwarding. New Feed Tension Control lets you quickly adjust feed for any paper... lightweight to post cards, even newsprint.

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can print 330 copies in 3 minutes, in 1 to 5 colors, for a fraction of a cent per copy.

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Conqueror prices begin at just \$214.50.** The Electric Mark III Conqueror, shown above, is \$299.50.** Sold and serviced by over a thousand Franchised Dealers.

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THE DEAN'S LIST FOR RECEPTION ROOM AND LOUNGE SEATING

✓ WILL IT CREATE A FAVORABLE IMPRESSION WITH VISITORS?

You look for good design... pleasing contrasts in textures and lines—as in the *Royal 815* group: elegant simplicity of satin-finish square-tube frames, accented by solid natural-walnut arm rests and rich looking upholstery.

✓ IS IT ADAPTABLE TO ALL ROOM SIZES, SHAPES?

Your best bet for flexibility is to pick from a complete grouping that includes matching sectional sofas, arm chairs, tables. The completely coordinated *Royal 815* group is available in a diverse range of upholstery patterns, materials, and colors, too!

✓ IS IT BUILT FOR COMFORT, MINIMUM MAINTENANCE, LONGEST LIFE?

You can't beat *steel* frame upholstered furniture for durability, and *Satin Chrome* finish for ease of maintenance. Since inner construction must withstand day-in, day-out traffic, features like *Royal's* all-welded, square-tube frames pay off in longer service. Cigarette-proof, alcohol-proof table tops are a must!



Left to right: 817 Right-Arm Chair; 815 Armless Center Section; 818 Corner Table; 816 Left-Arm Chair; 819 Club Table; 825-W Club Chair; 820 End Table.

YOU GET THEM ALL IN

Royal 815
sectional seating series

WRITE FOR ILLUSTRATED, FREE SEATING FOLDER
and name of your local *Royal* dealer... he'll gladly help you
in your planning.

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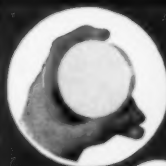
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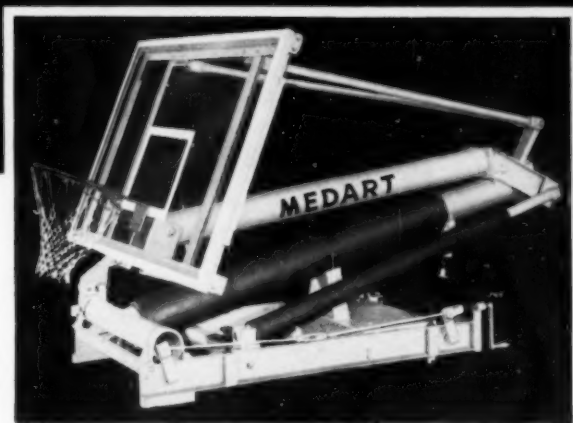
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Let Us Retain the Disclaimer Affidavit

COMERFORD J. O'MALLEY, C.M.

President, DePaul University, Chicago



MANY lines have been written, much discussion and debate have taken place on the oath and affidavit required of college students who wish to borrow money through provisions of the National Defense Education Act. Some colleges and universities have withdrawn from any participation in this act. They have thereby cut off their students from the benefits that might accrue to them and have prevented them from exercising the freedom of choice to share in these federal loans.

The institutions and various educational associations have petitioned Congress to delete the affidavit from the act on the grounds that it is superfluous or discriminatory or that it invades freedom of conscience and trespasses on the liberties guaranteed by the Constitution. The integrity, loyalty to country, and right-minded motivation of these institutions and associations are beyond question.

To get to the heart of the matter, let us look at the text of the law. In quite clear and simple language it states: "A student borrower must sign an affidavit stating that he does not believe in and is not a member of an organization that believes in or teaches the overthrow of the United States Government by force or violence."

In substance, the law requires that the students borrowing money freely from the government for their higher education — at interest rates and on general terms unmatched by any agency here or abroad — sign an affidavit of loyalty to their country. They must put their names on a sworn statement that they are not part of a conspiracy to overthrow the political system which, through its elected representatives, has voted millions of dollars for the educational aid of students and under which all Americans enjoy the broadest and greatest freedoms existent anywhere in the world. Are requirements of this kind unreasonable or contrary to the traditional virtue of patriotism normally expected of citizens?

It would seem irrelevant to the issue to assert that because other groups — farmers, businessmen, pensioners — who make demands on the federal treasury are not required to make an affidavit, this stipulation of the act is therefore discriminatory. Should not the provisions of the act be viewed within the context of the crises constantly provoked by organizations that would destroy democracy and establish a political system of human slavery? Is it not a matter of common knowledge that

these organizations attempt to infiltrate institutions of higher learning and influence the pliable minds of youth with principles based on a philosophy of life that threatens our national security?

It is against this background that I believe we must view the reasonableness of the oath of loyalty and affidavit. I am not implying that the students of our colleges and universities have submitted, save in rare instances, to such pressures. They have not.

Viewed from this point of view and considering the precise case of a student borrowing substantial sums of money from the federal treasury, is it an unreasonable requirement to have such a student express in writing a loyalty to country which should be a basic qualification of the borrower?

Our elementary and secondary schools regularly have their students pledge allegiance to the flag for the purpose of instilling into the youth of the nation not merely a superficial and unmeaningful devotion to the United States, but a deep-seated loyalty to everything good that America stands for. The parallel between the pledge and the oath and affidavit is admittedly overdrawn, but in substance do they not both have the same purpose — to evoke a declaration of enduring fidelity to our constitutional form of government, quite reasonably demanded of all of us?

The thing about this debate that puzzles and disturbs me is why, in a given situation and during these critical days, anyone (college student, professional, business, or laboring man or farmer) should object to certifying loyalty to his country. It is my conviction that educators who are training youth to perpetuate our God-given rights and freedoms should be in the vanguard of those willing to make such a declaration and by their example should inspire students with the sense of responsibility and privilege of declaring, in writing and by oath, allegiance to the United States.

During these days when powerful and antagonistic forces are working to undermine our way of life and making a frontal attack on the immature minds of our youth, when the practice of moral virtues even in high places is at low ebb, instead of caviling over the prescriptions of the National Defense Education Act, would it not be more in the national interest to strengthen the devotion of our young people to their country?

LOOKING FORWARD

Retired Politicians as Professors?

IN RECENT years there has been considerable discussion in regard to the recruiting of suitable personnel for college faculties to meet the problem of handling overflow enrollments.

Some persons have suggested the use of retired faculty members, while others have urged the recruiting of those with careers in the military service or the enlisting of retired corporation executives. Former President Harry S. Truman has made a suggestion that is well worth considering: Hire retired politicians as teachers.

A course in history or political science, taught by a former governor or congressman, could be a most interesting and challenging intellectual experience for both teacher and student. A Midwestern college recently profited by such an arrangement by adding a former governor of Ohio to its faculty. It would seem likely that history and political science, and related fields, would come alive under the teaching of a practical realist who knows from experience what he is talking about.

To quote Mr. Truman: "Retired politicians in the classrooms of our nation might give us the closest thing to real statesmanship that we are likely to find. Both as teachers and, more importantly, as students, the men and women who have served America as lawmakers and executives could bring to our universities a new understanding of political theory and practice and a new interest in free government by the people."

"Such a move might create on the campus a new and deeper concern with the humanities, the essential basis of our free society, and help to restore them to their rightful position in relation to the sciences."

Mr. Truman's suggestion makes good sense.

Plaudits for O.S.U.

OHIO STATE UNIVERSITY has been adding no new city-licensed rooming houses to its registered list unless the landlords pledge acceptance of the university's "open house" antidiscrimination policy, according to a statement on off-campus housing policies issued by William S. Guthrie, executive dean of student relations at O.S.U. The university's own nondiscriminatory policy in all its residence halls "is well established and well known," Dean Guthrie said, "and applies to all its accommodations for single and married students. Ultimate goal of the university's program is to achieve adequate off-campus housing without discriminatory practices."

University officials report that several professionally

trained community workers are devoting part of their time to visiting landlords to "interpret the problem to them and obtain additional open-house acceptances." A student program of visits to landlords also has been operating, under the auspices of the student senate.

It is reported that in the membership requirements of fraternities and sororities, only one sorority at Ohio State University retains a "Christian" clause, and no sorority has a racial restrictive clause. Only four fraternities retain discriminatory clauses, Dean Guthrie said, and "it appears that all may be gone soon with continued efforts now used."

University officials and students deserve commendation for recognizing that an unjust situation had existed and for taking corrective action. Higher education, dedicated to the search for ultimate truth, cannot tolerate bigotry in any form.

Round-Up Time Again

THERE is something about the spring months of the year that brings out the gregarious instinct of college and university administrators. Bags are packed, plane and train tickets are purchased, and the campus becomes the sole property of faculty and students while the administrators flit here and there to attend professional conventions.

For some, the convention is a social clam-bake. For many more, it is one of the few times when key administrators can work out together the solutions to vexing problems.

The professional growth of more members of the administrative staff would be enhanced if local colleges would provide a wider representation at professional meetings. Often the chief executive officer is the only person privileged to attend. The cross fertilization of ideas that a convention often stimulates needs to be shared with a larger number of persons. Convention exposure can do much to broaden the horizons of staff personnel, who need to be made aware of more than the parochial interests of their own environment.

Convention attendance should be considered as an opportunity to go back to school. Those who attend should be required to report back to their associates who stayed at home. Skill in interpreting and in summarizing significant action at conventions profits both institution and attendee. The question should be: "How can we make convention attendance more meaningful?" And, conversely: "How can we improve convention programing so that needs are more adequately met?"

An American college president takes a



WESTERN SIBERIANS. These are some of the students enrolled at the State University of Irkutsk.

SECOND LOOK AT SOVIET UNIVERSITIES

NORMAN P. AUBURN

President, University of Akron, Akron, Ohio

THE Ministry of Higher Education gives us all the rubles we ask for to operate our university." . . . "Once the Ministry gave us more than we requested."

These were the answers we received from rectors and pro-rectors of seven leading Russian universities to our questions about how they finance their manifold educational and research activities.

At first we thought the Russian educators were exaggerating. But as we inspected the great state universities in Moscow, Leningrad, Kiev, Tbilisi, Tashkent, Samarkand and Irkutsk we began to believe that the answers were not just Communist propaganda. We know that the U.S.S.R. is deeply committed to education. The apparent willingness to give the educator-administrator what he says he needs to do an adequate job is proof that the Kremlin leaders look upon education as the primary means of building a great industrial nation.

How well have they succeeded in their endeavor?

While we cannot condone the methods the Russian dictators have used, we now realize that in just 42 years a once poverty-stricken and dispirited nation populated largely by peasant-farmers has become the second greatest industrial power in the world. Indeed, it has leapfrogged from sixth place to second place in industrial output since Stalin started the first Five-Year Plan in 1928. (Continued on Next Page)

Whereas we may look down our noses at their aims in education vis-à-vis ours, we now know that a once illiterate nation has become one of the world's most highly educated. We cannot gainsay the fact that the children of uneducated peasants are now the skilled technicians, scientists and engineers responsible, in a large measure, for Russia's burgeoning industrial development.

Nevertheless, Nikita Khrushchev is dissatisfied with the system of education that made this rise possible. He called for reforms at the XXI Party Congress to bring the schools into greater accord with "the practical realities of life," i.e. work and production. He recognizes that the classrooms and laboratories in the U.S.S.R. are the instruments he must use in his unceasing drive to "overtake" capitalistic America.

What Are Implications?

What are the implications for us of the Soviet Union's dedication to education? What are the possible effects of the recent changes in the educational system decreed by Chairman Khrushchev?

Answers to such questions are highly speculative. My attempt at answers is based on what I was able to learn on two educational missions to the Soviet Union — a 13 day visit in Moscow, Leningrad and Kiev in 1956, and a 30 day return trip in April and May 1959. The latter included Asiatic Russia.

The second trip, under State Department auspices, enabled my colleagues¹ and me to probe deeply into higher educational establishments, not only in the three key cities of European Russia, but also in Georgia, Uzbekistan and Southeast Siberia. Our host, V. S. Yelyutin, the Minister of Higher Education who accompanied Chairman Khrushchev on his American tour, made possible our visits with faculty members and students in the



STUDENTS OF ENGLISH and Dr. Auburn at Foreign Language Institute.

major universities, in the technical, cultural, pedagogical and language institutes, and in elementary-secondary schools, kindergarten and boarding schools.

Our study tour was especially revealing because (1) we visited Russia during the height of the school year rather than during the summer vacation when the universities and institutes close up shop, and (2) we took with us our own very able and knowledgeable interpreter to breach the language barrier. Dr. H. William Dewey, associate professor of Slavic languages of the University of Michigan, helped keep the record straight during long interviews in university administrative offices, lecture halls, and science laboratories.

With Bill Dewey as our ears and lips we knew that the English saying, "The spirit is willing, but the flesh is weak," did not come out in fractured Russian as "The vodka is good, but the meat is poor." This had happened on our first trip.

Now an attempt at the answers.

Objectives Differ

Russia's deep and abiding dedication to education must not be brushed off and dismissed with the deprecatory remark that her educational aims are different from ours, and, ergo, not important. It is a fact that the Kremlin-directed educational system has vastly different objectives from ours. We could not embrace their objectives and still remain a free, democratic nation.

Even though we reject the educational *objectives* of their system we ought not overlook some of their *methods* and what has been accomplished thereby.

But, first, how do we differ in objectives? The key to this is the regard for the individual in the two countries.

In democratic America we regard the individual as the child of God who must be given the opportunity through education to develop his talents to assure him "life, liberty and the pursuit of happiness." Since the individual counts as a human being, his mind must be freed from ignorance. He must be trained to think analytically and to act rationally as an independent being in a free society. The state is his creation and his servant.

Russians "Indoctrinated"

In Communist Russia the state is omnipotent and supreme. The individual is educated — "indoctrinated" is a more accurate word — to serve what the rulers set forth as the good of the state. An atheist country, Russia considers her masses as expendable manpower required to develop and strengthen an ideology which, it believes, is destined to rule the world. The individual must be trained to his full capacity in order that he can serve the state as an intelligent and zealous automaton.

The reader may think this comparison is overdrawn. But all the evidence I could find supported it. Try as I would, for example, I could find no

¹President Harlan H. Hatcher, University of Michigan, and Vice Chancellor F. Cyril James, McGill University.

counterpart for our social science courses in comparative economic systems or comparative government. The Russian student learns of just one political ideology — Marxism-Leninism.

Every Russian in higher education must complete three authoritarian courses, stretching over five years, and then pass collegiate as well as state examinations in them. These all-important courses, prescribed, managed and staffed by the Ministry of Higher Education, are: history of the Communist party, political economy, and historical and dialectical materialism.

I asked a deputy minister of higher education why the U.S.S.R. had no courses in comparative economic or political systems. His reply: "There is only one true and worthy system — communism. We must not clutter up the minds of our students with unworkable theories."

The deputy minister's reply is corroborated by the Law on Strengthening of the School's Contact With Life, the bible for the reform movement in education adopted by the XXI Party Congress in February 1959. Article 36 of the law reads:

"To deem it essential to intensify the conceptual-political education of students, to improve the teaching of Marxist-Leninist theory, to train young people in the spirit of high principles of Communist morality, of love for labor, irreconcilability to bourgeois ideology."

In another section of the same law appears the statement that there must be "considerable intensification in Communist education of youth."

U.S.S.R. Methods Work

Although we reject the Communist objectives on education, we nevertheless know that the U.S.S.R. has adopted methods that appear to work. Her students are serious-minded and industrious. Their incentives for success in their studies transcend ours. This carries over after graduation in their work in industry, in agriculture, and in the professions.

Success in the classroom and laboratory provides the greatest measure of security a Russian can attain. Education from kindergarten through the Ph.D. is free, and the stipends received by good students afford them a standard of living hardly obtainable by a worker in industry or on the farm.

The science student at the University of Moscow, in his modest dormitory cubicle, for example, never had it so good. He has a degree of privacy in his living arrangements his family has never enjoyed. This alone, over and above the assurance of a good job after graduation, is a powerful motivation for success.

Exempt From Military Service

Moreover, this science student and his male counterparts in all institutions of higher learning are not just deferred, but are exempt from military service.

Exemption from military service is not, of course, an incentive for the girls, who represent nearly half of the student groups. But they have equally powerful reasons for excelling in their studies. Since women are an important segment of the labor force, the kind of a job a woman gets depends largely upon her intellectual attainments.

This quip reveals why the average Russian student is willing to concentrate on his books: "With a diploma you're a man; without one, you're a bug."

Through the educational system, including the political youth groups — Young Pioneers, Komsomol and so forth — the Russian people have been sold on the superiority of communism as a way of life and are dedicated to its advancement. With our feeling of superiority we may say that they have been brainwashed, but we discount at our peril the consequences of this brainwashing on our way of life.

The Kremlin has succeeded in using the schools, institutes and universities as the instrumentalities to goad the people on to greater production and to greater dedication to communism. The average Russian appears to

have a missionary-like zeal to do his full share to make communism work.

The intelligent Russian realizes, of course, that he is now living under a system of state capitalism. But he thoroughly believes that if he does his part his children will enjoy the blessings of a true communistic society.

Russia has devoted the rubles and the effort necessary to its schools to bring about these desired results. We want and require different results from our schools, but we apparently begrudge the money needed to do a first-rate job for our expanding student population. To meet the Russian challenge we shall have to devote more time, attention and dollars to our educational system.

But even though the Soviet Union has made almost phenomenal progress because of its reliance on education, Nikita Khrushchev is unwilling to relax and let well enough alone. He has called for educational reform, the results of which we should watch with great care.

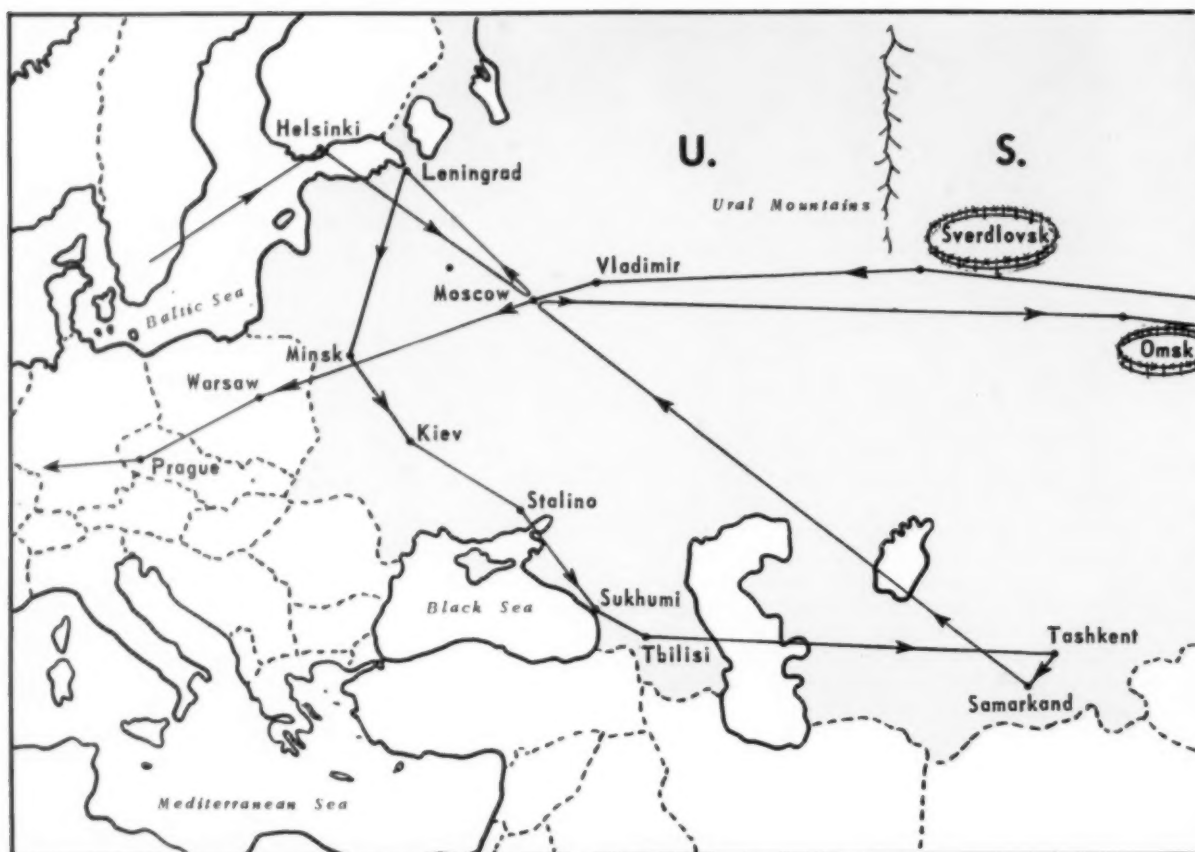
Fundamental Defect

The fundamental defect of Russian education, according to Mr. K., is its divorce from life. This is contrary to the basic Communist tenets that all the "comrades" should be willing and eager to engage in manual labor.

As the result of Khrushchev's criticism and the action of the XXI Party Congress, Russian education is now in a state of flux. The net of the situation seems to be this:

In the Russian planned economy, the Kremlin determines the number of administrators, scientists, engineers, doctors, lawyers and agriculturalists it will need in the years ahead. The Ministry of Higher Education then determines annually the number of first-year students to be accepted in all institutions of higher learning to meet the quotas five years hence.

But since education provides about the only means a Russian has of lifting himself by his bootstraps, far more youngsters apply for the limited "spaces" in universities and institutes



ROUTE TAKEN by three North American college presidents as they toured

COLLECTIVE FARMERS pose with Mrs. Auburn after serving lunch to visitors.

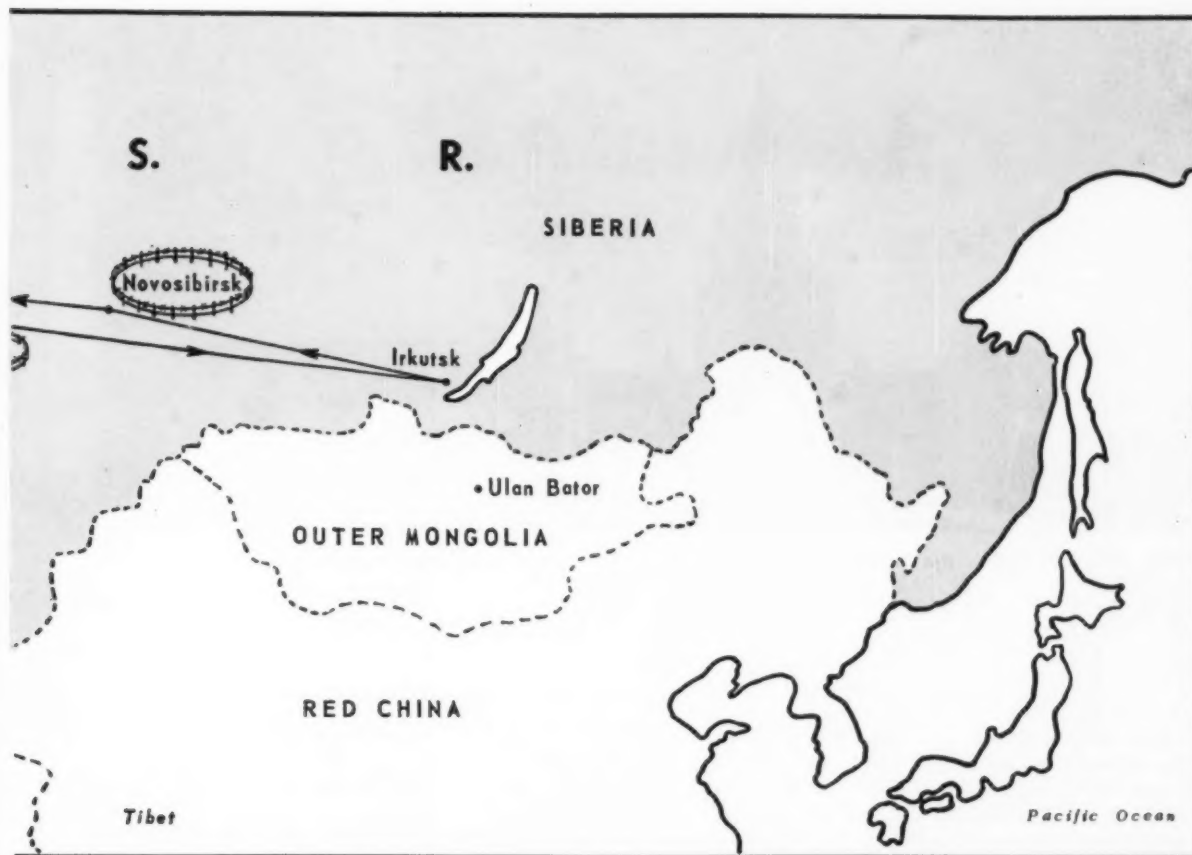


than can be accepted. In 1958, for example, four times as many applied as there were "spaces." Deputy Minister of Higher Education Prokofiev told us that the institutions of higher learning can accept only 500,000 of the 2 million who apply.

To Khrushchev it appears that the secondary schools were dedicated primarily to preparing students for higher education. When the majority of the secondary graduates failed to be accepted, they were found to be ill prepared for work in industry or the farm. Worse, many of them abhorred working with their hands.

This is rank heresy in a Marxist-Leninist society. Man, according to Marx, is a producing animal. He must love and honor manual work per se.

The new plan calls for emphasis on "the combination of education with industrial production," as Marx and Engels phrased it in "The Manifesto of the Communist Party." Beginning



both European and Asiatic Russia. The trip was made under State Department auspices.

in the elementary schools, the youngsters are given work experience. And it continues through the secondary system.

Until the educational reform measure, the aim had been to extend the mandatory seven-year schools to 10 year schools. Now the countrywide plan calls for cutting back to eight years, after which those who desire to continue may elect three years of co-operative work-study on a day or evening basis. Entrance into universities and institutes will be restricted, in the main, to 11 year graduates who have subsequently completed two full years on the job.

In Moscow at Public School 39 we learned from the principal how the new plan will work there. Beginning last September an 11th grade was added to this 10 year school. But in the last three years, one-half of the students will attend classes on Monday, Tuesday and Wednesday, and work

in local industrial plants on Thursday, Friday and Saturday. Each student has an "alternate" in what the principal described as the "sandwich plan" of education.

This plan, of course, is similar to the American cooperative work-study program followed by about one-third of this nation's engineering schools. But in Russia this plan becomes effective in the secondary years.

Short of Manpower

Some observers of the Russian scene believe the educational reform has been devised to provide more recruits for the work force in Khrushchev's drive for greater production to achieve the new Seven-Year Plan goal. Russia has been short of manpower, as contrasted with manpower, ever since World War II. Whereas a good case

can be made for this observation,² we were assured by the deputy minister of higher education that this was not the prime objective.

Some of the university rectors expressed concern to us about the changes that bordered on mild criticism. They were skeptical about the emphasis they are being required to place on evening and correspondence education. They seemed concerned about the educational hiatus that will result from the decree that all secondary students, except those in certain scientific fields where shortages occur, must work two full years after secondary graduation before being admitted to universities or institutes.

Pro-Rector Tulpanov of the University of Leningrad, for example, appeared to be irritated at the decision to hold that great university, founded in 1819, at its present size, with the only expansion being in evening and correspondence courses. Rector I. T.

²DeWitt, Nicholas: *Upheaval in Education*, *Problems of Communism*, Vol. XIII, No. 1, (January-February) 1959.



SOVIET SHOWPLACE is this skyscraper building, one of large group at Moscow University.

Shvets of the Shevchenko University in Kiev expressed similar concern and admitted that he questioned whether his students could perform as well in evening classes as in day classes. Indeed, he queried our group particularly about our evening and extension programs and seemed reassured when I told him our evening courses in Akron are identical with our day courses and are, in the main, taught by full-time faculty members.

At the younger universities in Georgia and Uzbekistan, the rectors exhibited less concern about educational reform. They apparently are reconciled to following the new official line without much protest.

Why has Khrushchev insisted on the reforms in education?

Fears Rise of Intelligentsia

My own hunch is that he has done so primarily because he fears the rise of an intelligentsia which may challenge the Kremlin dictatorship. I held to this belief during my visit in May. It was reinforced in my mind when, on his return to Russia following his American visit and his trip to Red China, Khrushchev denounced as "unwise" the hopes of "some enemies abroad" that as more people become educated in the Soviet Union there would be unrest with the status quo.

"The more educated people there are in the Soviet Union, the more ardent, convinced champions of socialism there will be," Khrushchev said.

The Russian chairman speaks a different language than we do. When he uses the word "education," he means what we term "indoctrination." He knows that to study freely is to think freely, and to think is to question. He can't allow his people to think freely.

Want To Learn About America

Our greatest hope, over the long pull, is that even the most carefully indoctrinated Russian may begin to question his lot. There is said to be a certain amount of freedom of inquiry in the physical sciences. As the scientists and researchers acquire more Western literature and as they have opportunities to talk with Westerners, they may begin to think for themselves. We know that many intelligent Russians want to learn the truth about America. Any perceptive tourist who takes the time and trouble to talk to students where they are in no danger of being overheard will discover their thirst for knowledge about the Western World.

Indeed this is also true of some professors. As one quip goes: "Many Russian professors are like radishes — red outside and white in the middle."

Meanwhile, America must lose no ground in this era of intensified competitive coexistence. Above all, we must keep the cold war cold as we work unceasingly for eventual world peace.

We have our work cut out for us in the days ahead. We must not forget that Khrushchev has never retracted his assertion that his system will bury ours. He has apparently convinced the Russian people that their security is certain only if they overtake and defeat capitalism.

Americans Must Be Alerted

America's educators are on the front line of the cold war. The future of the free world depends a great deal upon our action in the years immediately ahead. We must alert the American people to the grave peril stemming from the rising Soviet giant. More important, we must awaken our people to the need for a more serious sense of purpose and mission in today's troubled world.

We must demand good performance from those who come seeking knowledge and understanding. We must strengthen their understanding of, and regard for, the free democratic processes. We must develop and expand America's greatest resource, the brainpower of our people. ■



Tuition Payment on the Installment Plan

ROBERT B. GILMORE

Controller, California Institute of Technology, Pasadena

CALIFORNIA HONOR COLLEGE is a mythical institution, but the deferred tuition payment plan described in the documents that accompany this article are no longer fictional.

Last fall California Institute of Technology started such a deferred tuition payment plan, and 42 students are enrolled under it at present. But let's talk about the plan at California Honor College, since it had to exist in the imagination before it could be put into actual operation anywhere.

A student at California Honor College in an undergraduate class, including entering freshmen, may extend tuition payments over as many as 11 years, under one of two types of deferred tuition payment plans.

Under Plan A a student may defer the entire tuition of \$1275 a year by paying \$50 a month from the date of entering the plan until any outstanding balance has been paid. A freshman starting and continuing under this plan would pay monthly installments of \$50 during his four undergraduate years and would continue with these monthly payments for six years after graduation, or a total of 10 years.

These installments include simple interest (interest on the unpaid balance only) at 5 per cent per annum and the premiums on an insurance policy which pays off any outstanding balance in the event of the death of the

student during the period of payments or of the parent (or guardian) responsible for his support during his undergraduate years. Thus a student, in effect, pays \$600 tuition during each of his undergraduate years and the balance, including interest and insurance, after graduation.

Plan B is for those who would find the \$600 payments too high, especially in the early years. Under this plan a student may defer up to \$900 of the tuition until after graduation. He would pay each year \$375 of the tuition in three equal installments at the beginning of each term and would pay the interest only (5 per cent simple interest) quarterly on the outstanding balance. His payments for tuition and interest for an entire year would be as follows: freshman year, \$398.44; sophomore year, \$445.32; junior year, \$492.12; senior year, \$539.07.

Six months after graduation he would commence paying the balance due in installments of \$50 per month for approximately seven and a half years. He would be covered by the same insurance as under Plan A.

A student may enter either of these plans at any time, and he may defer any portion of the tuition up to \$1275 under Plan A or \$900 under Plan B. He may also at any time make larger payments on the outstanding balance than the minimum required.

**CalTech inaugurates
two deferred tuition
plans, here described**

Turn page for deferred tuition payment forms ➤

REPURCHASE AGREEMENT

Eighth National Bank
National Bank Building
California City, Calif.

Gentlemen:

Certain students at California Honor College may desire to borrow money from you for payment of their tuition. Their requests will be in the form of an agreement signed by the student, and insofar as is reasonably possible, the student's parents or guardian. The advances made pursuant to the Agreement will be made on Disbursement Requests endorsed by us and forwarded to you. It is our desire that you make advances for this purpose even though the student may be a minor or for some other reason not qualified to borrow from you. The terms of these loans may be for as long as twelve (12) years.

We will obtain, endorse in blank, and forward to you the Agreement and Disbursement Requests. The face amount of the Disbursement Request will be credited to our account.

In consideration of your making such loans, we agree that if a default shall occur in the performance of the obligations of any borrower, and such default shall not be corrected within 180 days from the occurrence thereof, then we will purchase any and all of the obligations to you of said borrower for cash at a price equal to the unpaid balance then owing on the loan, plus all interest accrued to date of purchase, plus all advances and expenditures made by you in our behalf in connection therewith. We understand that you will notify us when any note has been delinquent for a period of 90 days or more.

Upon any such purchase of your loan by the undersigned, it is understood and agreed that your assignment of the loan or endorsement of the note evidencing such loan or transfer of your right, title and interest in and to the loan shall be without recourse to you and made without warranty by you.

The granting by you of any extension of time or other indulgence to the borrower or your taking or releasing of any security for such loan or any defect in the instrument, minority or other lack of capacity of the parties to the instrument, failure to obtain a signature of a parent or guardian shall in no way affect the obligation of the undersigned to purchase said loan. The undersigned expressly waives any requirement that the Bank proceed against any of the parties to the note or Agreement or any other person. The undersigned also waives diligence, demand, presentment and notice. We agree to pay you your reasonable attorney fees should any action be brought by you to endorse the provisions of this agreement.

CALIFORNIA HONOR COLLEGE

By _____
Vice President

By _____
Secretary

Dated: _____

INSURANCE AGREEMENT

TO: EIGHTH NATIONAL BANK

Gentlemen:

Supplementing our letter of Feb. 2, 1959, we hereby request that you arrange with the Accidental Life Insurance Company of California to provide term life insurance on the life of any borrowing student for the duration of the loan. In addition, this insurance should be also on the life of the designated parent or guardian for the duration of the school year, or years, the student is registered as an undergraduate. The amount of the insurance shall be equal to the outstanding balance of the indebtedness of the insured debtor at the time of his death.

The total premium is to be collected from the students during the period they are registered as undergraduates at California Honor College. The premium will be collected in installments at the time of each disbursement and will be added to the unpaid balance of the student's loan. The amount of the premiums collected in this manner is to be credited to a special insurance account carried by you under the title "California Honor College - Deferred Tuition Insurance Account." You are hereby authorized to charge this account and make payments of insurance premiums to the insurance carrier, or to make such other disbursements including insurance refunds as may be authorized by us from time to time.

The amount of the premium paid to the insurance carrier shall be based on the total of the deferred tuition loans outstanding on your books at the time premium payments are due. We understand the rate applied to determine the amount of premium due will be fixed by the insurance carrier and will apply for the current policy year only, and further that this rate will be subject to annual review and possible revision at that time.

The amount of the premium to be paid by each student will be determined at the time the initial application for a loan is made, and will be based on the premium rate in effect at that time.

In the event the amount of premium collected from the student is not sufficient due to revision in the rate by the insurance company, California Honor College will reimburse Eighth National Bank with the amount necessary to complete the premium payments.

Yours very truly,

CALIFORNIA HONOR COLLEGE

By _____

By _____

DISBURSEMENT REQUEST

Date _____

Eighth National Bank
National Bank Building
California City, Calif.

Pursuant to my deferred tuition agreement, I hereby instruct you to disburse \$ _____ to the California Honor College to be applied against the current tuition payment and \$ _____ as current premium due on the term life insurance.

Plan _____

AGREEMENT**(Plan A)**

FOR VALUE RECEIVED, the undersigned jointly and severally promise to pay to Eighth National Bank, or order, National Bank Building, California City, Calif., the sum of \$ _____ in installments payable on the first day of each successive month beginning _____, all in the amount of Fifty Dollars (\$50.00) or more including simple interest at the rate of Five per-cent (5%) per annum each except the final installment which shall be in the amount of the then remaining balance owing under this Agreement.

IT IS UNDERSTOOD AND AGREED that \$ _____ is to be disbursed as tuition and \$ _____ as term life insurance costs. The term of insurance under the policy on the life of the student's parent, or legal guardian, as designated on the Creditor's Records as the insured debtor shall be only for the duration of the school year, or years, including scheduled vacations, the student is registered as an undergraduate student of the California Honor College, but in no event shall such term exceed four years from the date the Creditor makes its first payment under the applicable contract of indebtedness. The term of insurance under the policy on the life of a student shall be the duration of the loan. The amount of the insurance shall be equal to the amount owing under this Agreement according to the policy issued by Accidental Life Insurance Company of California.

THIS AGREEMENT SHALL NOT BE ENFORCEABLE AGAINST THE MAKERS HEREOF FOR MORE THAN THE AMOUNT DISBURSED PLUS INTEREST AND OTHER CHARGES AS HEREIN PROVIDED. Disbursements will be made to the California Honor College and will be evidenced by a Disbursement Request signed by the undersigned student. Installment herein referred to shall be payable monthly regardless of the amount of the balance until the unpaid balance and interest are fully paid. It is further understood and agreed that this is a primary, direct obligation and that lack of capacity of any party hereto shall not be a defense to the payment of this obligation. It is understood and agreed that the provisions of this Agreement shall apply to all amounts advanced under this Agreement for the undersigned student and to any extension, renewal or new note or other document which may be obtained in connection therewith. This Agreement is assignable by the holder.

Should any default be made in the payment of any installment of principal when due, time being the essence thereof, or in case of insolvency, bankruptcy, failure in business, death of any of the undersigned, or should the undersigned student cease to be a student at California Honor College for any reason other than graduation, this note, at the option of the holder, shall immediately become due and payable without demand or notice. Diligence, demand, presentment and notice are hereby waived.

_____ Student	_____ Local Address
_____ Parent or Guardian	_____ Permanent Address
_____ Parent	_____ Address

AGREEMENT**(Plan B)**

FOR VALUE RECEIVED, the undersigned jointly and severally promise to pay to Eighth National Bank, or order, National Bank Building, California City, Calif., the sum of \$ _____ as follows: Interest only shall be payable quarterly beginning _____ to _____, beginning _____ and on the first day of each successive month installments shall be payable in the amount of Fifty Dollars (\$50.00) or more including simple interest at the rate of Five per cent (5%) per annum except the final installment which shall be in the amount of the then remaining balance owing under this Agreement.

IT IS UNDERSTOOD AND AGREED that \$ _____ is to be disbursed as tuition and \$ _____ as term life insurance costs. The term of insurance under the policy on the life of the student's parent, or legal guardian, as designated on the Creditor's Records as the insured debtor shall be only for the duration of the school year, or years, including scheduled vacations, the student is registered as an undergraduate student of the California Honor College, but in no event shall such term exceed four years from the date the Creditor makes its first payment under the applicable contract of indebtedness. The term of insurance under the policy on the life of a student shall be the duration of the loan. The amount of the insurance shall be equal to the amount owing under this agreement according to the policy issued by Accidental Life Insurance Company of California.

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_____ Student	_____ Local Address
_____ Parent or Guardian	_____ Permanent Address
_____ Parent	_____ Address

POSTWAR families are having three, four or five children, and these are closely spaced. To provide these children with four years in college may put an impossible burden on some of their parents, as within a six-year or an eight-year period they may have several children of college age. Most educators agree that the junior college is the most economical and promising development in postsecondary education. A free public college within commuting distance of home will permit abler students to prepare for senior college and, at the same time, will perform a screening service for the universities. James B. Conant, in his recent report to the nation, recommends that every interested and capable student should have at least a two-year college experience. He thinks many students are not getting what they need in our four-year colleges. The accompanying article describes the forward looking junior college planning that is being done in one state, Florida.

Florida's Plan for Local Junior Colleges

JAMES L. WATTENBARGER

Director, Division of Community Junior Colleges
Florida State Department of Education

LAST fall, more than 11,000 students were enrolled in 10 junior college areas in Florida. Just three years ago, less than 4300 students were enrolled in four junior college areas. Next fall, more than 15,000 students will enroll in 14 junior college areas located within commuting distance of 59 per cent of the state's population.

This rapid expansion has come about as a result of a comprehensively planned program for the development and expansion of facilities for higher education in the state. The 1955 legislature created the Community College Council and directed it to develop a long-range plan for the expansion of community junior colleges.

This council presented to the state board of education in 1957 a plan that eventually will provide an opportunity for higher education within commuting distance of 99 per cent of the state's population. Long range, the plan envisions 25 or 30 locally controlled junior college areas, each providing a variety of postsecondary school opportunities for students living in these specifically defined areas.

This comprehensive planning for higher education in Florida is outlined in the reports of the Community College Council and the Council for the Study of Higher Education. While the former provides for junior colleges, the latter considers the problem of meeting the needs of students at the university level.

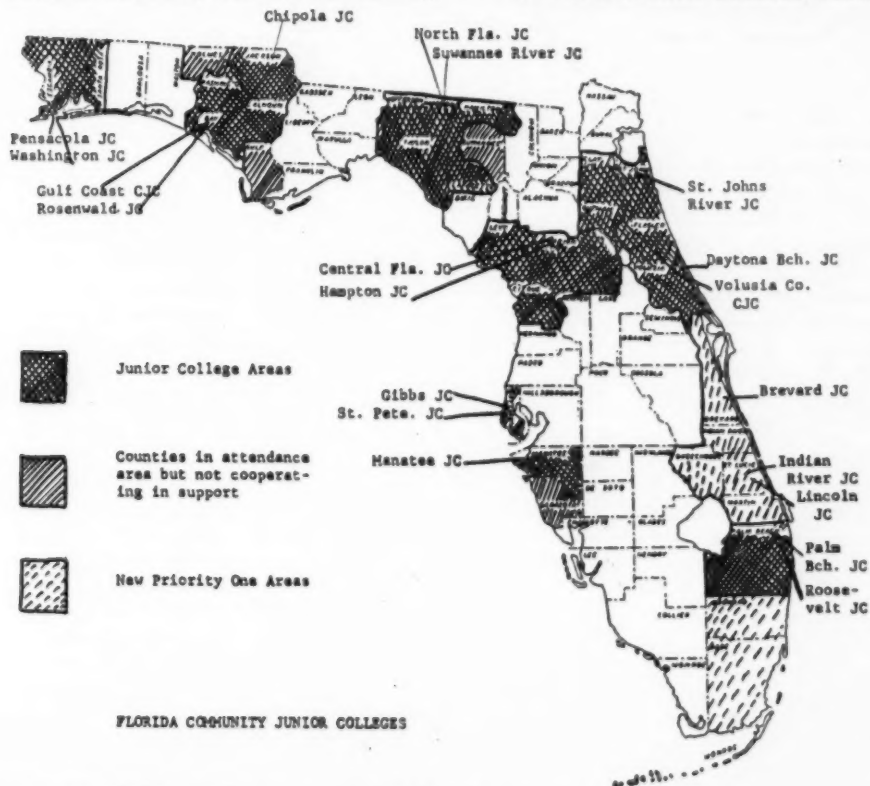
A new university, the University of South Florida, has been established in Tampa, and others are in the planning stages. These plans for higher educa-



PENSACOLA JUNIOR COLLEGE, Administration Building.



CHIPOLA JUNIOR COLLEGE, Science Building.



ST. PETERSBURG JUNIOR COLLEGE, Library and Outdoor Patio.



tion are designed to provide for more than 157,000 students who will be attending colleges and universities in Florida in 1970. (The projected enrollment may be compared with 45,000 students in 1955 and 60,000 in 1959.) The public junior colleges alone must be in a position to provide for 57,000 students by 1970.

The report of the Community College Council, "The Community Junior College in Florida's Future," summarized the needs of the state in its principal findings:

1. The number of students who will need facilities for continued education beyond high school will increase greatly.

2. Florida's high school seniors have indicated interest in many kinds of postsecondary education.

3. Public junior colleges will help to eliminate many of the barriers to continued education that now affect the decisions of high school seniors.

4. Local surveys reveal large support for community junior colleges with broad programs.

5. If barriers to continued education are eliminated, Florida eventually will need 31 junior college areas.

Based on Priority System

With these findings in mind, the council recommended a long-range program for expanding community junior college facilities. It also recommended that these community junior colleges provide broad programs for youths and programs for adults. The order of precedence in establishing new institutions is based upon a priority system. This, in turn, is based upon local surveys indicating local readiness for sound development of a community junior college.

The state board of education accepted these recommendations in 1957, and the legislature put them into effect that year. Since then, 10 new junior college areas have been established, six in 1957-59 biennium and four in 1959-61; new buildings have been constructed for all institutions except the four newest ones. More than \$14 million has been appropriated by the state for "planning, building and equipping" these buildings.

Currently operating junior colleges provided opportunity for more than one-third of the college freshmen enrolled in Florida last year. In the areas

within commuting distance of junior colleges, 75 per cent of the freshmen went to the junior colleges. The trend toward local higher education for the first two years will enable the state universities to concentrate on advanced professional and graduate work.

Basic Reasons for Progress

Such rapid progress was possible because of several basic reasons:

1. A sound, even though limited, development of public junior colleges in Florida dating back to 1933 has provided a solid basis for expansion.

2. Junior colleges are considered a normal extension of the philosophy that publicly supported education should be made available to as many people as can profit from the experience.

3. Junior colleges have worth and purpose of their own. They are neither extensions of universities and subservient to them nor are they mere extensions of high schools and stepchildren of school systems.

4. The industrial and economic development of the state demands that opportunities beyond high school be provided if the state is to meet industry's demand for skilled and trained personnel.

5. The attitude of the state universities and the county school systems is favorable.

6. The legislature has given support and help both in planning this development and in putting it into effect.

7. All persons concerned have been willing to approach the problems from a factual basis, to formulate objective decisions, and to develop long-range as well as short-range purposes and plans on a statewide basis.

8. Developed as a normal part of local public school systems, the junior colleges have provided continuity, broader local financial backing, and a ready-made organization that could nurture a rapidly growing educational service.

9. A special agency at the state level, the Division of Community Junior Colleges in the state department of education, was given responsibility to aid and to coordinate the development.

In its early deliberations, the council set down some principles basic to sound development. First, the coun-

cil said, local control is essential. An examination of programs in other states clearly substantiates this. For example, in the few states where there is a centralized state control the junior colleges either have become four-year institutions, abandoning their functions as junior colleges, or have experienced relatively little growth and development.

Second, joint state and local financial support is essential so that a common floor of expenditures per student may be assured without a ceiling being established at the same time. If the state aid provides enough to meet basic educational needs of students, then local areas can be encouraged to enrich these basic expenditures to the extent of their abilities.

The council also made it clear that it expected the junior colleges to fit into the established pattern of school administration of the state. It regarded the idea of an entirely new pattern as unnecessary and inadvisable. Previous experience in junior college development was a major factor in this basic decision.

Has County Unit System

Florida fortunately has a county unit system of school organization. There remained only the problem of providing for combinations of these county units where population was not sufficiently concentrated to warrant a junior college in a single county. This principle has been a major factor in the solid and rapid development of the new junior colleges.

At this early stage, the council also committed itself to the development of community junior colleges with broad purpose and function. These were not to be set up as a university preparatory college nor were they to be trade schools. The need for a variety of programs as well as an emphasis upon general education along with occupational skills became the basis for curriculum recommendations. The general public has given great support to this basic concept of curriculum.

As a final principle, the council emphasized that there must be continual evaluation and analysis of the junior college program. When need for improvement becomes apparent, steps to accomplish such improvement should be taken. One of the most effective ways to do this is through state coordinated planning and study.

As a result of its work, the council hoped to develop a locally controlled system of public community junior colleges coordinated on a statewide basis, which would provide for the broad postsecondary school needs of less than professional level for the young people and adults living in the state.

Three major steps were involved in the study conducted by the council. The first was to examine the educational, economic and population needs of all counties. The second was to conduct local surveys to determine readiness of certain areas with a potential junior college enrollment of at least 400 students. The third was to begin the actual study and planning necessary for starting classes.

As a result of the first two steps, all counties were placed in one of four priorities. Priority 1 areas (consisting of one or more counties) were to begin the third step as soon as possible.

Florida has 67 counties. In the spring of 1957, eight of these were served by the four existing junior college areas. The council recommended that 17 counties be established as six new junior college areas in Priority 1 status. Three areas (including six counties) were placed in Priority 2-A status and five areas (including nine counties) were placed in Priority 2-B status. Seven areas (including 14 counties) were placed in Priority 3 status as they had less than 400 potential junior college students. The remaining 13 counties were placed in Priority 4.

The six areas with Priority 1 status began operation in the 1957-59 biennium. Their junior colleges now are offering a complete two-year program and have moved into new buildings after operating in temporary quarters for one year. The three areas in Priority 2-A status have been raised to Priority 1 and will begin operation next fall. One Priority 3 area has been raised to Priority 1 because of its rapid growth and also will begin operation next fall.

These changes in priority status were based upon thorough local surveys reported to the state board of education. A plan for continued expansion and development has been put into operation.

The Community College Council consisted of seven lay citizens and three educators. Its study, which extended over a two-year period, had

How 60 Colleges Handle Student Parking

EARL M. DERBES

Service Supervisor, University of Cincinnati

TAKING a modicum of comfort from the fact that the University of Cincinnati is not the only institution confronted with an insistent demand for more student parking space, we recently queried 60 colleges in regard to their parking procedures. This is what we learned:

To the question, "Do you prohibit any segment of the student body from operating an automobile in the vicinity of the school?" 30 answered No and 29, Yes.

The next question, "Do you require students to register automobiles they operate?" brought 5 No answers and 45 Yes; 9 said students were required to register only in connection with parking assignments. Forty charged no fee, 15 had a charge that varied between 50 cents and \$5 per year, and 3 charged anywhere from \$7 to \$20 per year. The penalty for failure to register was a \$5 fine at 10 schools, \$10 at 11, and 21 reported miscellaneous amounts.

The third question, "Do you control the parking of student vehicles on school property?" had only 1 No answer. Thirty-eight said Yes and 20 replied "only on campus."

"Do you charge a specified fee for parking privileges?" was the

fourth question. Answers were No, 35; Yes, for students, 22; Yes, for staff, 16; Yes, for faculty, 16. The fee charged students, staff and faculty was the same — \$1 to \$50 per year.

Forty-four said No and 15 said Yes to the fifth question: "Do you physically limit access to student parking areas by use of attendants or mechanical gates?"

The sixth question asked: "Do you control student parking areas by use of decals, metal tags, and so forth attached to vehicle?" It brought 9 No and 50 Yes answers.

There was only one No reply to this question: "Do you use violation tags to enforce your parking and traffic regulations?" Fifty-seven said Yes, for students, and 56 said Yes, for both staff and faculty.

The questionnaire then asked the institutions to outline their appeal procedure for recipients of violation tags. Following are the responses:

The students appeal to: student court, 29; dean of students, 14; miscellaneous, 10. The staff appeals to: parking committee, 24; dean, 12, and miscellaneous, 14. The faculty appeals to: parking committee, 24; dean, 12, and miscellaneous, 15. ■

a full-time director, a small staff, and a number of consultants from all parts of the country. Its work consisted of formulating the basic recommendations for junior college development in the state.

Lay members of the council continue their responsibility as members of the Florida State Advisory Council on Education, a statutory body assigned to make recommendations to the state board of education on mat-

ters dealing with education, especially those relating to junior colleges.

The council's blueprint has been approved. The first steps have been put into effect. Florida has clearly shown that as a state it is determined to provide the facilities and the opportunities for the postsecondary education which people in a democratic nation may expect to have and which they need for survival in this modern world. ■



Seven Secrets of College Fund Raising

Warren B. Knox

Assistant to the President for Financial Development
Whitman College, Walla Walla, Wash.

MOST fund raising secrets, once shared, turn out to be nothing but obvious answers, after all. Success in raising money is measured by the amount of money raised; the amount of money raised depends upon the number of people asked; the number of people asked depends upon the number of calls made. This is a secret?

In this increasingly serious business of finding the necessary funds for maintaining and strengthening our independent colleges we must stop searching for secrets and stop waiting for miracles. The *one secret* in this business — times seven or times 70 — is an obvious answer: Go and call on your prospects.

SECRET No. 1: Go and call on your prospects.

Much has been written of direct mail *vs.* personal solicitation of alumni and parents. Colleges can quote statistics to prove that each of these methods is best, based on their experience. The variables that must be taken into account in such a comparison are too numerous for a general conclusion ever to be arrived at. This, however, is not my point. Both of these methods figure in the importance of Secret No. 1.

If the annual solicitation of alumni and/or parents is to be by personal contact, the "secret" is most obvious. Results have to be directly proportional to the motivation and effectiveness of the sales force in relation to the number of people it asks. Whether by volunteer worker, staff member, or both, the calls must be made. Salesmen in business and industry depend upon this principle for their very livelihood. What would be the results if we put our fund raisers on a salary plus commission arrangement? No, I am idealistic enough to think that our "incentive motivation" must be our faith in the college we serve.

What if the solicitation is to be by direct mail? Then the mailing piece must be just as good as a personal call. The letter must shake hands with the prospect in the first paragraph, ask him for money in the second, and give him a sincere "thank you" in the last.

SECRET No. 2: Go and call on your prospects.

So far, I have not been able to think of an effective way to ask a corporation executive for money when I'm

sitting in my office in Walla Walla and he is sitting in his office in Seattle.

Whether you go along with a group appeal or an independent solicitation philosophy to obtain the corporate gift, overwhelming evidence of success points to a personal visit with the officer who is in a position to recommend to his board of directors that the corporation make such a gift. Of course, this can mean sitting in waiting rooms and outer offices by the hour. It can mean calling back again and again. How much do you want the gift?

The way to greater corporate support for independent colleges has been opened through the fine work of organizations like the Council for Financial Aid to Education and the Advertising Council of America, and through the efforts of industrial leaders like Ralph Cordiner, Irving Olds, and Frank Abrams. But these organizations are only creating the scenery and the backdrop for your specific dramatization — and neither Mr. Cordiner nor Mr. Olds nor Mr. Abrams is going to play your starring role for you.

SECRET No. 3: Go and call on your prospects.

Officers and trustees of most foundations will tell you to (1) find a specific project in which their foundation has an interest, (2) make an application in writing, and (3) sit back and wait.

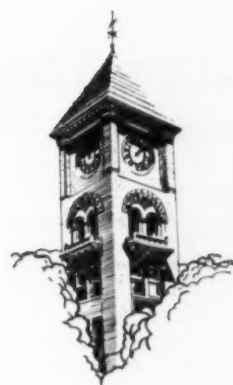
But look at it this way: Suppose the Jones Foundation has to make a decision between awarding a grant to College A or College B. Both are good colleges. Both have followed the first two steps exactly as directed. But the president or the development officer of College A takes the time to call on one of the officers of the foundation to supplement his material in person. Which college stands the better chance of receiving the gift?

If more of us took the time we use to debate the question of whether it is worth while to call on foundations, and used it to call on foundations, we may find out.

SECRET No. 4: Go and call on your prospects.

A capital gifts campaign? The stakes are high in this one, particularly in the "advance" or "special gifts" category. No mailing piece will do the job here (hopeful

While you're sitting in the office waiting for the great miracle, or are out chasing rainbows, or looking for somebody to whisper the great fund raising secret in your ear, your very best prospect is probably giving to another cause.



exceptions must be classified as wishful thinking). If volunteers are used, they must know the story. They must be equipped with brochures and charts and graphs and blueprints and pictures and pledge cards and envelopes. But this array of printed matter is worth nothing unless it is used to supplement a verbal presentation of your cause, your case, and your request.

Where did that story originate about a costly brochure being made up to capture the imagination (and the check) of one man? That brochure was undoubtedly handsome and appealing but the point to remember is that someone *took* it to him and someone *discussed* it with him and someone *asked* him for a gift.

SECRET No. 5: Go and call on your prospects.

If you are actively engaged in a bequest program, then your prospect may be in the person of an attorney, a trust officer, a financial adviser, or a certified public accountant. These are only "middlemen" between the college and an eventual testator, but they can make or break your bequest program. You had better see as many of them as you can at least once a year. They need to be reminded (yes, even if they are alumni) that your college deserves mention upon inquiry.

Some suggested forms for bequests to your college will be worth your time to prepare, but you had better introduce yourself and your college to Mr. Attorney, Mr. Banker, or Mr. C.P.A. — and, while you're in his office, *hand* him the bequest forms.

One last word about this "long-range" phase of your development program: Long-range doesn't mean inactive. The longer the range, the more concentration needed upon the target.

SECRET No. 6: Go and call on your prospects.

You know what a special project is. The chemistry department could build a lot of its own apparatus if only it had money in the budget for some additional shop tools. There is an alumnus or a parent or a trustee who will give them, if he's asked. The philosophy department is six years behind in buying new books in its field. If only it could have enough money permanently to endow a book

purchase fund for philosophy! Research will turn up a prospect who will willingly give the money, if only he's asked.

Too many times we take a "no" to be a personal turn-down rather than the institutional turn-down that it really is. If we really believe in the institution we serve and that it really needs and deserves the funds we seek, then we ought to be willing to wade through a hundred *no's* to find the *yes* we're looking for.

SECRET No. 7: Go and call on your prospects.

In the field of life income, which is relatively new but which promises to rewrite the books of independent college financing, my stubborn secret is perhaps more valid than in any of the areas that have been previously mentioned.

Here the base of support goes beyond alumni, parents, friends, trustees and others close to the college. Total strangers to your cause are willing to take advantage of the things you offer them in a life income program: a safe and generous rate of return on their investment; several important tax savings; the expert management of a conservative but diversified investment portfolio, and the opportunity to establish a living memorial. This is an opportunity for real salesmanship. And yet, many carefully worked-out plans of this kind never get off the ground because the prospects, even those who indicate a genuine interest, are not called on. Rare is the customer who is interested enough in such an arrangement to go to call on the salesman.

In conclusion, then, set aside more out-of-the-office time each week. And, once you have set it aside, use it to see people and ask them for money. While you're sitting in the office waiting for the great miracle, or out chasing rainbows, or looking for somebody to whisper the great fund raising secret into your ear, your best prospect is giving to another cause. He is giving because some other salesman called on him and asked for the order. ■

It would be remiss of me as author not to give sincere acknowledgment to Allen F. Hawley, John F. Moulds and William B. Himrod. These men, with whom I worked and from whom I learned, have been quietly but effectively working away to the great advantage of independent higher education and of Pomona College for more than 40 years.

Our Students Are Billed by the Month

L. R. BRCKA

Secretary, State University of Iowa, Iowa City

DURING the first semester of the academic year 1958-59, students at the State University of Iowa were given the opportunity to pay fees on a monthly installment basis. Advance payments of \$50 were required of students prior to registration, and the balance of semester fees was prorated in equal installments over the months of November, December and January. Monthly billings of installments were mailed to students or to their parents, if requested, and return envelopes were enclosed with each billing to encourage payment by mail.

In addition to charges for student fees, monthly billings included credits for scholarships, installments for room and board in residence halls, rental for married student apartments, charges for room, board, dues and other assessments in fraternities and sororities, and many other types of charges such as car registration fees, reserved parking fees, library fines, and so forth.

Students and parents were enthusiastic about the plan because it distributed the charge for fees over the entire semester, and payments could be made by mail instead of a call being made at the cashier's office. In addition, other charges incurred by the student during the month could be cleared by the one payment.

The monthly statement of university accounts receivable (Exhibit A), which we refer to as the student billing, is prepared on punched card equipment. The original copy is mailed to the student or parent, and the second copy retained in the cashier's office. The original copy may be separated into two parts on the perforation, and the top part shows stu-

dent name, student number, date due, and the student's or parent's mailing address. Students and parents are asked to return this part with their payment in order to assure proper credit to the student's account.

The bottom part or body of the billing shows a detailed list of current month charges, and students or their parents are asked to retain this part for future reference. Information on this part of the form includes student number, charge date, description and rate of charge for the semester or year, amount of current month charge or credit, and the net amount due.

Exhibit A is a sample of the student billing form and includes some of the items that appear on monthly billings. This sample shows a credit balance forward that appears if the amount paid by the student has exceeded the total of items previously charged. If the amount paid was insufficient to cover all charges on the previous billing, a debit balance is carried forward.

The first current month charge appearing on the sample billing is the monthly installment of \$20 for a liberal arts fee of \$110 for the semester. A student fee ledger (Exhibit B) is prepared each month, and this report shows the total fee assessed and the amount transferred each month to the student billing. Student fees are assessed by the registrar's office through prepunched assessment cards and are used directly in the student fee ledger. A composite fee amount is assessed for each student based upon several factors, namely, resident or nonresident status, the number of credit hours carried by the student, and the college in which the student is enrolled.

Monthly installment amounts are computed at the beginning of the semester for the schedule of fees, and rate decks are prepared for use in gang punching monthly installment amounts

for each student's fee assessment. The deck of fee installment cards prepared each month is included in the student fee ledger.

Adjustments for changes in credit hours or for cancellations during the semester are computed manually, and charge for credit cards are key punched for use in the current month student billing. The student fee ledger provides a record of all assessments, changes, cancellations and amounts transferred to the student billing each month.

Fees for private music lessons are not included in the composite fee; therefore, they are included as a separate item on the student billing, and the total fee is billed with the first monthly installment of regular fees.

Scholarship credits are also shown on student billings, and the total amount of the scholarship is prorated over the semester on the same basis as the charge for fees. Amounts of credits are computed by the business office at the beginning of the semester, and these amounts are key punched each month and entered directly in the student billing. Adjustments are made each month only for those students who have a change in fees because of an increase or decrease in their schedules or for those students who cancel their registrations.

The next item on the sample billing is room and board in one of the residence halls. In this case, the contract rate for the year is \$730 and the current month charge is \$75. Unlike the monthly installments for fees and tuition, installments for room and board in residence halls, rental for married student apartments, and monthly assessments for fraternities and sororities are also billed in October. This additional installment is nec-

From a paper presented at the Machine Records and Computing Conference for Educational Institutions, Iowa State College, 1959.

EXHIBIT A

12 1 58
DATE DUE

NOTE: IF MAILING ADDRESS IS NOT CORRECT, PLEASE MAKE CHANGES ON THIS SHEET.

DETACH ON PERFORATION AND RETURN WITH PAYMENT

CHARGE DATE	DESCRIPTION AND RATE OF CHARGE	AMOUNT OF CHARGE OR CREDIT	AMT. DUE
73919	110158 CREDIT BALANCE FORWARD	11000	2500-
73919	120158 STUDENT FEES	73000	2000
73919	120158 HILLCREST CONTRACT	73000	7500
73919	120158 HILLCREST ASSN DUES	TOLL	250
73919	111058 CHICAGO ILL	TOLL	267
73919	111058 3228 DES MOINES IA	TOLL	150
73919	111058 3228 CEDAR RAPIDS IA	TOLL	64
73919	111058 PARKING FINE		100
73919	111058 LIBRARY FINE		112
73919	111058 CHEMISTRY BREAKAGE		350
73919	111058 CHEMISTRY SERVICE		175
73919	111058 STUDENT HEALTH		100
73919			8568

STUDENT NAME: ADAMS JERRY R
STUDENT NUMBER: 73919
ADDRESS: ADAMS JERRY R, N244 HILLCREST, IOWA CITY IOWA

EXHIBIT E

STATE UNIVERSITY OF IOWA
IDENTIFICATION CARD

VALID ONLY WHEN PRESENTED WITH
CURRENT CERTIFICATE OF REGISTRATION

55803
DOE, JOHN A.

EXHIBIT B

STUDENT FEES
ACCOUNTS RECEIVABLE LEDGER

STUDENT NAME OR DESCRIPTION OF CHARGE	DATE	STUDENT NUMBER	AMOUNT
TRANS TO ACCTS REC	5500R	5811 158	7000-
TRANS TO ACCTS REC	5500R	5812 158	2000-
			2000
DOE, RICHARD J	5400R	58 92558	13000
			7700-
			5000

EXHIBIT C

DORMITORY AND DINING SERVICE
ACCOUNTS RECEIVABLE LEDGER

STUDENT NAME OR DESCRIPTION OF CHARGE	DATE	STUDENT NUMBER	AMOUNT
77768 BALANCE FORWARD	110158	73000	51500
77768 JOURNAL DEBIT	110158	73000	22368
77768 JOURNAL CREDIT	113058	70761	64053
77768	18588	25500	1505
77768			521
47782 STITZEL JOHN A	0160	92058	73000
77782 BALANCE FORWARD	110158	73000	5150
77782	53211	73000	4400
77782			750
477801 DAVIS GARY G	0218	92058	73000
77801 BALANCE FORWARD	110158	73000	5150
77801	53211	73000	4400
77801			750
477805 HOWAR ROBERT C	0202	92358	25500
77805 BALANCE FORWARD	110158	25500	1735
77805	18588	25500	1505
77805			230
477841 IESMAN MARTIN E	0206	92058	73000
77841 BALANCE FORWARD	110158	73000	5150
77841	53211	73000	4400
77841			750
477938 BIAS RICHARD TIMM	0202	92058	81000
77938 BALANCE FORWARD	110158	81000	5650
77938	59041	81000	48500
77938			800
477956 KEMPHART RALPH L	0211	92058	81000
77956 BALANCE FORWARD	110158	81000	56500
77956	59041	81000	48500
77956			800
477980 ANDERSON BRUCE ALLEN	0304	92058	73000
77980 BALANCE FORWARD	110158	73000	51500
77980	53211	73000	44000
77980			7500
478017 TRUESHALL DAVID G	0302	92058	73000
78017 BALANCE FORWARD	110158	73000	51500
78017	53211	73000	44000
78017			7500
478025 BOYD WILLIAM FOREST	0211	92058	73000
78025 BALANCE FORWARD	110158	73000	51500
78025	53211	73000	44000
78025			7500

EXHIBIT D

STATE UNIVERSITY OF IOWA

19536
DOE, JOHN A.

I. D. CARD (PRINT OF NAME AND NUMBER)

STUDENT SIGNATURE: _____ DATE: _____ CODE: _____

DESCRIPTION OF DEPARTMENTAL CHARGE: _____ AMOUNT: _____

DEPARTMENT SIGNATURE: _____

CHARGES PRIOR TO THE 10TH ARE INVOICED ON THE 10TH OF THE MONTH.

essary to assure that student's room and board accounts are paid a month in advance.

The monthly charge for room and board in residence halls and rental in married student apartments is computed on punched card equipment, and a card called a transfer to student

billing card is summary punched while the dormitory ledger is being prepared (Exhibit C). This ledger is prepared for two purposes: (1) to arrive at the amount to transfer to the student billing each month, and (2) to compute for each occupant the amount of actual earnings for room

and for board and to accumulate these amounts for each dormitory. In addition, amounts of deferred income for room and for board are available for each residence hall from this report.

Room, board, dues and other assessments for fraternities and sororities are posted to assessment rolls by

treasurers of the respective organizations and delivered to Fraternity Business Service. Fraternity Business Service, in turn, posts total assessments for occupants to cards prepunched with student name and number. Assessment amounts are then key punched into the cards and used directly in the student billings.

In addition to fees and room and board, approximately 20 other charges may appear on student billings. For the most part, charges are prepared by departments by filling out a three-part form (Exhibit D) at the time the charge is incurred by the student. One copy of the form is given to the student, one part is retained by the department, and the original is forwarded to the business office on the monthly cut-off date for such charges. These charges are key punched and included in the billing on the first of the following month. Some of these charges are included on Exhibit A and others include education placement fees, dental clinic charges, student loans, late medical examination fees, student-yearbook subscriptions, charges for replacement of lost I.D. cards, and many others.

Penalty for Late Payment

Any plan of installment payments requires some fairly strict collection policies, and this plan is no exception. Monthly billings are mailed on the last working day of the month. They are due on the first of the month and must be paid no later than the 12th. Students with outstanding accounts after the 12th are considered delinquent, and a penalty of \$5 is assessed for late payment. Students with outstanding accounts after the 20th of the month are reported to the registrar for cancellation from school, and those students may be reinstated only upon payment of the outstanding account, a late payment penalty of \$5, and a reinstatement fee of \$10.

If an account is paid by check and the check returned by the bank because of insufficient funds, the student is notified by mail that the check has been returned and, unless the amount of the check is covered within three days, he will be canceled from school without further notice. A penalty of \$2 is assessed for each returned check.

These rules are applied on a strict basis, and each month there are fewer

late payments. In March of last year only 3 per cent of the accounts were unpaid at the close of business on the 12th of the month.

Under this system, payments are received by mail or over the counter in the cashier's office. Students and parents are asked to mail payments in envelopes enclosed with billings, and each month a larger percentage of payments has been made by mail. For those payments made by mail, cash received cards are key punched directly from checks, together with the stubs from student billings which are returned with checks. Lists of payments are prepared from the cards and are used as documents in daily cash receipt vouchers for the record of cash received.

12 Days in One Sequence

At the close of business on the 12th of the month, all cards for the first 12 days are listed in one sequence; those accounts that have been paid in full are selected from the cashier's office file so that only the unpaid accounts are left. Partial payments are posted to the cashier's office copy and returned to the unpaid file.

For payments received over the counter, the cashier's office copy of the billing is processed through a validating machine and becomes the document to support the amount of cash received in the daily cash receipt voucher.

On approximately the 20th of the month, all cash received cards are merged by student number with all credit and charge cards from the billing for the current month. In addition, a control card is collated in, as the last card for each student, and all cards are processed through the business machine computer. The amounts from cash received and credit cards are stored in a counter and, as each charge card passes through the computer, the amount of charge is subtracted from the total in the counter and a code is punched into the charge card to show that it has been paid.

If the total of credits exceeds the total of charges, the credit balance in the counter is cleared into the control card, and this card is used as the cash balance forward card in the next monthly billing. If the total of credits in the counter for a given student is reduced to an amount less than the amount in the next charge card, this

card remains uncoded. Only those cards paid in full are coded.

Unpaid charge cards and the credit balance, if any, for a given student are summarized on a tabulator, and the net debit balance is carried forward on the next month's student billing. The charge cards that have been coded as paid are separated on a type of charge code, and reports of these cards are prepared on a tabulator for use in supporting accounting entries that record income to the university.

The key control for all transactions is student number rather than name. A change in the type of I.D. card issued to students has provided this plan with an accurate student number. Upon admission to the university, students are issued plastic I.D. cards. These cards are used to imprint name and student number on the three-part form (Exhibit D) when charges are made for student services in departments. This process assures a correct identification of the charge with the student and eliminates the human error in posting numbers. This "charge plate" system is used wherever the student is present at the time the charge is made.

This plan is a major change from the procedures we used previously in collecting student accounts.

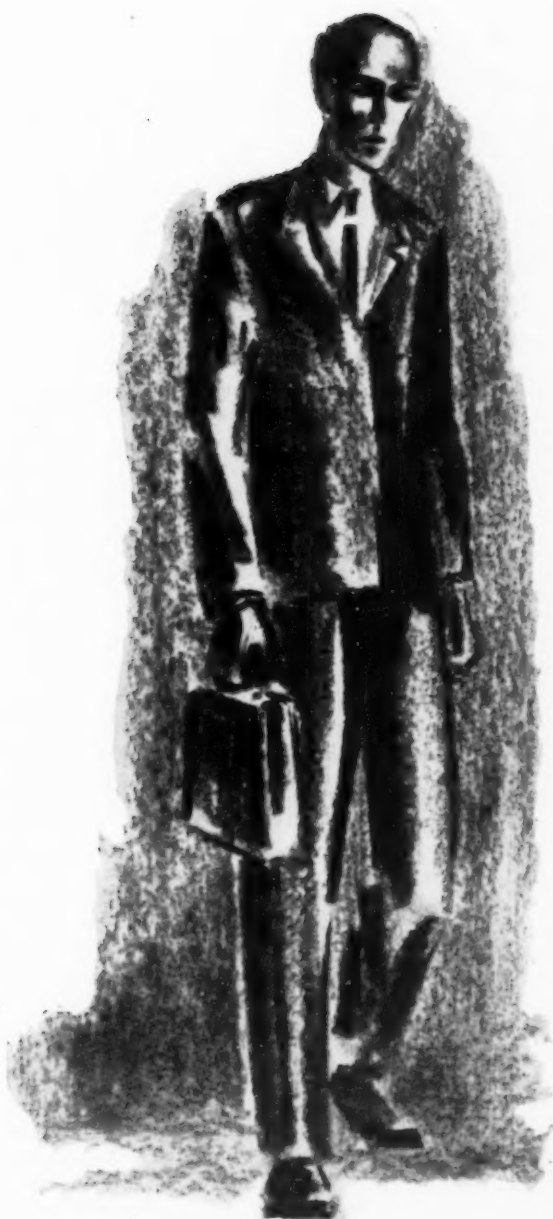
A complete line of punched card equipment, a machine to fold and insert bills into envelopes, and other machines are used to reduce the amount of clerical help required and to provide for a mechanized system of accumulating, billing, collecting and accounting for student charges.

This plan, we believe, will meet the need for a mechanized procedure of collecting accounts during the period of rapidly expanding enrollments that we anticipate in the near future.

The primary test of any plan of collecting accounts is the record of collections. During the first semester of last year a total of \$3,113,637.32 in charges was billed on student billings; at the end of February, the amount of unpaid accounts totaled \$5337.81, or one-sixth of 1 per cent of total charges. The unpaid accounts resulted from students who canceled their registrations during the semester. Regularly established collection procedures are being used to collect this amount. ■

**On the college business staff, good men are
hard to find. Nor is it easy for them to relocate**

JOB PLACEMENT FOR ADMINISTRATORS



ORIE E. MYERS Jr.

Director of Nonacademic Personnel
Emory University

DONALD E. DICKASON

Executive Secretary
College and University Personnel Association

INSTITUTIONS of higher learning find it hard to make contact with qualified persons interested in administrative positions. And persons interested in administrative work in colleges and universities have no effective means of making their interests and availability known to institutions in need of staff members.

The College and University Personnel Association has a plan for a placement service to bring these institutions and individuals together. To operate such a placement service, initial financial support must come from other organizations and foundations interested in improving administrative operations in colleges and universities.

The service would probably commence to receive registration and placement fees at the beginning of the second year of operation so that during the second and third years the operating costs would be financed partly from sponsor support and partly from service income. It is believed that the placement service would become self-supporting by the end of three years.

Each year one of the nation's most precious commodities — administrative and executive manpower — becomes more scarce. The competition for administrative manpower has become so acute that industries are forced to in-

vest millions of dollars in the recruitment and training of executive personnel.

Institutions of higher education employ administrative and executive staff members in large numbers. However, since they are scattered throughout the nation, it is difficult, or even impossible, for administrative personnel to contact the sources of such positions. Many competent men who would be interested in administrative work in the field of education never reach the point of actual consideration for appointment.

At the same time, administrative officers are leaving the field of education to achieve the personal gains they deem essential, although, unknown to them, other institutions are seeking the services of men with their qualifications at an appropriate salary level.

Large institutions are seeking persons to fill such administrative positions as chief business officer, director of personnel, director of purchases, director of food service, director of plant operations, dean of students, director of admissions, controller, and similar positions. Small institutions are seeking men for the positions of business manager or for multiple job combinations.

Some groups have attempted to satisfy this need on a regional basis, and certain individual associations have attempted to cope with the problem insofar as their specialized areas of interest are concerned. However, the problem is greater than the efforts of any one geographical region or any one administrative area of interest. It is, in fact, one of the major problems of over-all institutional management and it is worthy of the combined interests and efforts of all geographical regions and of all areas of interest in the field of higher education.

Sponsorship

Placement service has been the object of study by the College and University Personnel Association for three years and more. The association has attempted in an informal and extremely limited fashion to fill this need. Other specialized associations have tried to cope with the problem on either a geographically-limited basis or on a specialization-limited basis.

Since neither approach has proved completely successful, it appears that only a well organized service operating on a national basis with interests in all areas of administrative personnel will be able to meet this important need.

The College and University Personnel Association is a logical organization to sponsor the proposed service, as it is a national organization embracing approximately 800 representatives from almost 400 educational institutions. The representatives include the personnel director or the official of the institution who is responsible for recruitment, retention and utilization of the staff manpower in his own institution. Here, then, is natural leadership in administrative personnel guidance and staffing.

Successful operation of the proposed College and University Administrative Placement Service will require the wholehearted and active support of each of the specialty and geographic associations. It is anticipated that the advisory committee of the proposed service will include representatives of all these associations. Officials of the College and University Personnel Association have consulted informally with other professional associations concerning the proposed program, and they have confirmed the need for such a program.

Plan for Organization

A nonprofit corporation or administrative body under the sponsorship of the College and University Personnel Association has already been established.

The board of directors will consist of nine persons, four being elected by and from an advisory committee. These four members will be elected for two-year terms in such manner that two members will be replaced each year. Officers of the College and University Personnel Association will serve in the other board positions.

There will be established a placement advisory committee to which will be invited the president, or the designee of the president, of certain specified education associations, such as the American Council on Education, the National Federation of College and University Business Officers Association, and similar groups. It is anticipated that such a committee will meet at least annually and will serve a two-

fold purpose: (1) to advise the board of directors of the placement service as to actual personnel needs in the areas of interest represented in the associations, and (2) to serve as a public relations medium. The College and University Administrative Placement Service will work with the individual professional associations in the recruitment, placement and development of necessary administrative personnel.

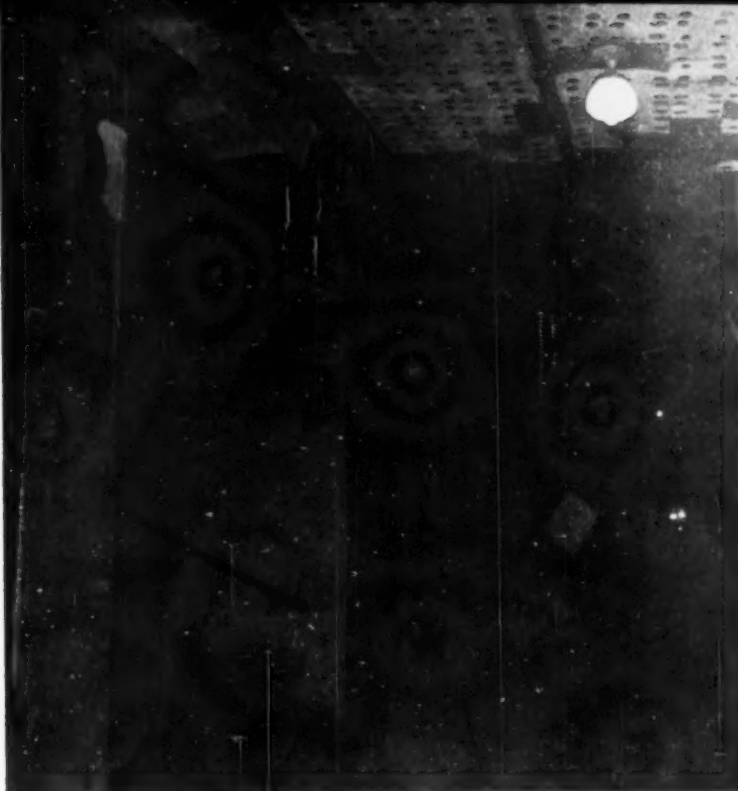
This program will be under the general guidance and day-to-day direction of an administrative placement committee. It is anticipated that this committee will be established by the board of directors and that it will meet as often as necessary, probably quarterly, to assure the efficient and economical operation of the placement service on a continuing basis. The executive secretary of the College and University Personnel Association will serve as executive secretary of the administrative placement committee, and two or more other members will be appointed according to the judgment of the board of directors.

Plan of Operation

Actual day-to-day administration of the service will be vested in the placement director of the College and University Administrative Placement Service. This official will administer the operational affairs of the program, including the recruitment of qualified personnel, the receipt and development of application data, the testing and investigation of the qualifications of applicants, the appropriate referral of qualified individuals to the colleges and universities that have potential needs for their services, and the general conduct of the service's affairs.

The placement director will be the official point of contact for institutions with administrative manpower needs and for persons seeking administrative positions in public institutions or interested in advancement in this chosen field.

It is anticipated that the placement director will necessarily spend a considerable portion of his time meeting with various professional associations and with the sources of administrative manpower throughout the nation. His position is an important one with reference to the program, and it is imperative that a strong and well trained individual be obtained for this purpose. ■



All photographs by the Los Angeles Fire Department

LIGHT SMOKE in school corridor during Los Angeles tests. Conditions are considered untenable when victims can be seen no more than 2 feet and when a person's breathing is shut off by tears and coughing.

SMOKE IS THE KILLER

FOUR months after the parochial school fire in Chicago, the Los Angeles fire department set about finding the answers to school fire safety in the most direct way possible. In a carefully controlled experiment, firemen burned down a three-story school, which was almost an exact replica of Our Lady of the Angels.

The Ford Foundation's Educational Facilities Laboratories underwrote the \$25,000 project. The Los Angeles school system furnished the building, a condemned junior high school.

The 75 fires set were designed to test the effectiveness of automatic vents, curtain boards (draft or fire curtains), and automatic sprinklers, individually and in combination. Also tested were automatic fire and smoke detection equipment, fusible links, automatic door closers, fire resistant paints, and materials.

A total of 1200 man-days was spent. The building was left a charred wreck, but not before it yielded a wealth of lifesaving facts.

The fire department released the results in a 264 page report prepared by the National Fire Protection Association. These results were almost completely negative.

Theories held for decades by the nation's top fire experts were discredited. Virtually all fire safety devices, except automatic sprinklers, flunked under test conditions.

What Not To Do

Discouraging though it sounds, results of the fire experiment demonstrated clearly what not to do in attempts to achieve classroom safety. The report revealed that children's lives are snuffed out by smoke, not flames, in almost all school fires.

School hallways turn into smoke-filled death traps long before automatic closing fire doors and self-opening draft vents can go into action.

Curtain boards designed to stop smoke spread, automatic heat detection devices, holes over stairways, even enclosed stairways, all failed to live up to their lifesaving reputations.

"It takes from 2 to 7 minutes for conditions in a school to become untenable," Fire Marshal Raymond Hill pointed out.

"In the tests we conducted, not one vent or automatic closing device worked swiftly enough to prevent spread of deadly carbon monoxide and other fumes," he commented.

Automatic vents helped only in the reduction of property damage. So, also, did the automatic closing firebreak doors in hallways. They had little if any effect on life safety.

Fire resistant doors and paints also failed to uphold hopes of the experts. Slow burning acoustical tile was found a hazard because it actually spread fire through the corridors.

Automatic closing transoms, designed to protect classrooms from fire heat, failed time after time to close before temperatures inside rooms reached the untenable point of 150 F.

One measure suggested since the Chicago fire was installation of partial sprinkling systems at probable hot spots, such as chemistry laboratories and furnace rooms. Tests proved this ineffective.

A partial system allows most of a building's occupants to reach hallways safely, said Mr. Hill. But it takes only 5 to 10 minutes for 1000 carbon

By GEORGE REASONS

Education Editor, Mirror-News
Los Angeles



ACOUSTICAL TILE made of cellulose fiber, when ignited, actually spread the fire. Los Angeles found that it constituted a distinct hazard. After the test fire was extinguished a large percentage of the acoustical tiles on the ceiling dropped down to the floor.

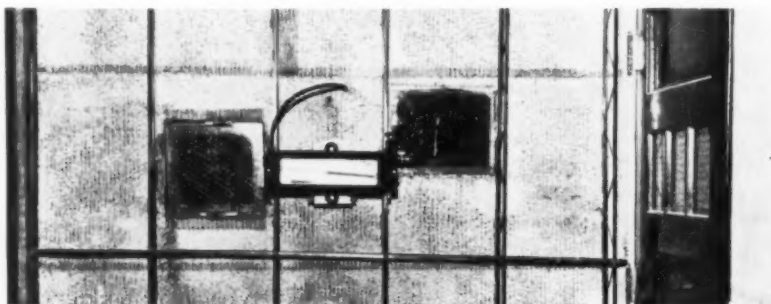


COATING the cellulose fiber acoustical tile with a fire retardant paint reduced the rapidity of flame spread.



CURTAIN BOARDS installed in a stairway opening unexpectedly failed to decrease smoke spread.

PRESSURE GAUGE or manometer was used in Los Angeles experiments to register the pressure build-up within the school corridor. Of all fire safety devices, automatic sprinklers alone prevented excessive build-up of the smoke and irritating gases.



monoxide parts per million to collect in the atmosphere during a fire, he added.

"With partial sprinklers, victims would get lost in the smoke and die unless firemen reached them immediately," Mr. Hill commented.

For years firemen have believed hazards of school fires were greatest on cold days, when doors and windows were shut. "We found untenable conditions were reached more quickly under hot day conditions, with wide open windows providing oxygen to feed the fires," Mr. Hill said.

Conditions are considered untenable when a victim cannot see more than 2 feet and when breathing is shut off by tears and coughing.

The tests showed the occupants of a classroom building (or residence hall) have much less time than thought previously to evacuate a building before it becomes a funeral pyre.

A typical test fire set on the first floor produced untenable conditions on that floor as a result of smoke within 2 to 3 minutes. Fumes and visibility reached the danger level in 4 minutes on the second floor and in less than 6 minutes on the third floor.

Heat became unbearable in from 5 to 7 minutes on the ground floor and within from 8 to 11 minutes on the second and third floors.

In every test, Mr. Hill said, untenable conditions were reached much more quickly than anyone anticipated.

The only device that showed promise of all-round protection was the complete automatic sprinkler system with built-in heat triggered alarms.

"Such a system, with its immediate heat reducing and fire fighting ability, plus alarms to alert the fire department and occupants of the building, appears the only answer to the dilemma," Mr. Hill contended.

The tests showed complete sprinkler systems maintain low temperatures throughout the building and prevent excessive smoke build-up.

Furthermore, added Mr. Hill, "no additional construction to correct open stairwells or faulty transoms or doors would be needed if sprinklers were properly installed."

"An untold number of lives and millions of dollars that might have been wasted on inadequate protective construction will be saved by the tests," the fire marshal said upon release of the report.

WHAT THE LOS ANGELES TESTS REVEALED

1. Untenable smoke conditions preceded untenable temperature conditions in nearly every test! With the test fires used in tests and no fuels added to the fire because of the construction of the building, smoke (specifically as it pertains to visibility and irritant effects) was the principal life safety hazard.

2. Natural draft vents of the sizes tested in this investigation, and installed and opened as described in each test, did not keep corridors and stairways tenable for exit use.

3. The addition of curtain boards with vents did not significantly aid in decreasing smoke spread through the building; in fact, it had an adverse effect on the action of the vents in some tests.

4. Forced draft up to the capacity tested failed to produce any more satisfactory venting action.

5. A complete system of automatic sprinklers will maintain low temperatures throughout the building and will prevent extensive build-up of smoke and irritating gases.

6. Partial automatic sprinklers (sprinklers installed in exitways but not in the fire area) did not prevent smoke spread throughout the building even when installed to provide a water curtain between the test fire and the corridors.

7. Vents and partial automatic sprinklers (sprinklers installed in exitways but not in the fire area) was not an effective combination.

8. Combinations of vents, curtain boards, and partial automatic sprinklers (sprinklers installed in

exitways but not in the fire area) did not prove to be satisfactory.

9. Untenable smoke conditions existed in the building before the operation of fusible link actuated devices.

10. Enclosed stairways will not provide protection against heat and smoke unless the doors are closed or are closed immediately after an outbreak of fire.

11. Automatic heat detection devices detected the presence of fire at about the same time that untenable smoke conditions were reached within the building.

12. Automatic smoke detection devices detected the presence of fire before untenable smoke conditions were reached, but not in sufficient time to allow complete evacuation of the test building.

13. Opening a hole to provide a vertical flue in the stairways did not significantly change any of the results.

14. Cellulose fiber acoustical tile (classified Class C and commonly known as "slow burning" under U. S. Federal Specification SS-A-118b) resulted in rapid fire spread when ignited. This constituted a distinct hazard in that it was the means by which fire could be readily transmitted throughout the building endangering all portions and persons therein. The rapid flame spread characteristic of the tile can be reduced with the application of a fire retardant paint (Underwriters' Laboratories, Inc., listed).

Installation of sprinkler systems is a relatively inexpensive method of obtaining fire protection, Mr. Hill believes. "Complete systems could be installed in Los Angeles for about \$6000 a school building," he said.

Already the Los Angeles city school system is installing such systems in its remaining 39 three-story schools. As soon as this is completed the systems will be installed in all two-story schools.

Schuyler Joiner, business manager for the school system, pointed out that cost of sprinkler installation will be partially offset by elimination of plans to install fuse-link doors and baffle vents, both of which were proved unsatisfactory.

California Fire Marshal Joseph Yockers reached another major decision based on test results. He recommended that the double-loaded center corridor method of construction be abandoned. As a safer alternative, he urged construction of schools with direct exits from each classroom in one-story buildings.

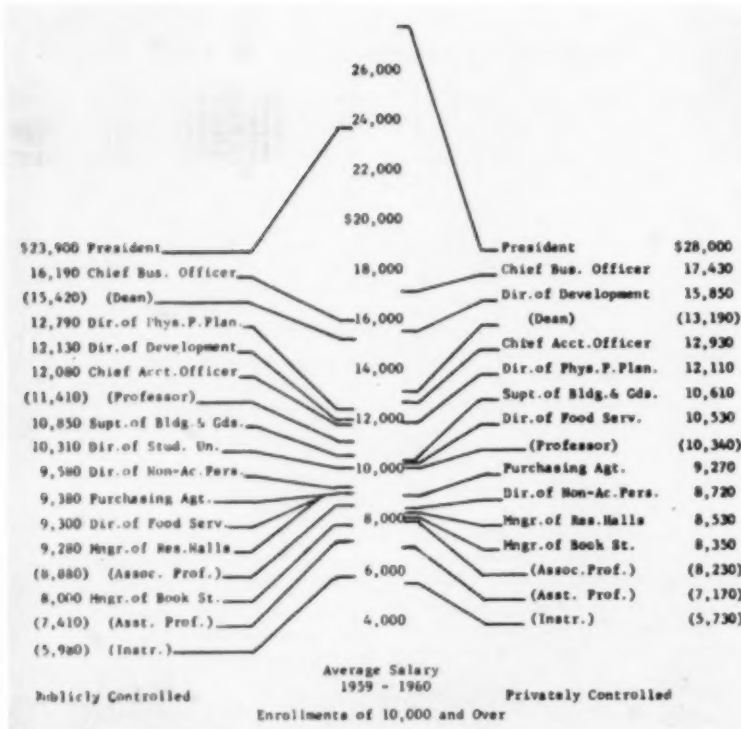
In multistory buildings, Mr. Yockers recommended external corridors with stairways at all four corners. He contends such changes would entail no increase in building costs.

The National Fire Protection Association, 60 Batterymarch Street, Boston 10, will distribute copies of the test results to schools and fire departments throughout the world. ■

The Salaries

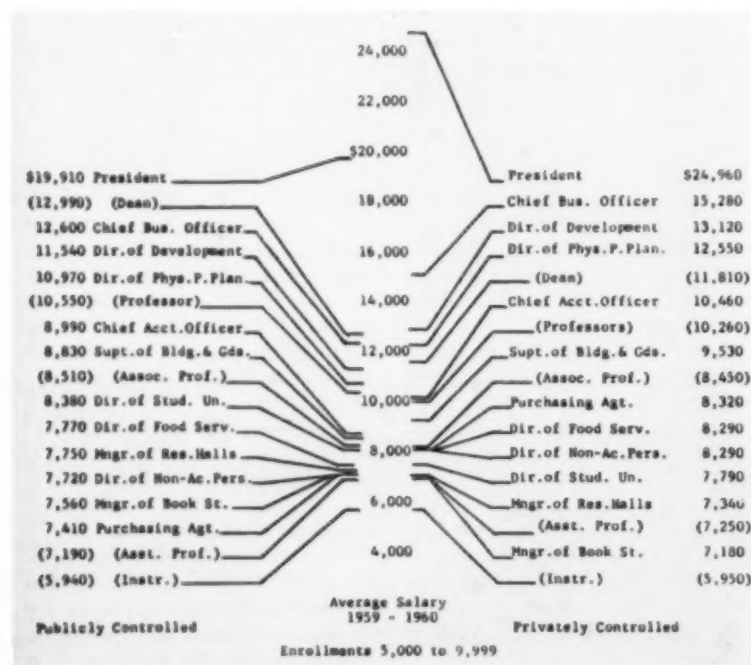
LESLIE F. ROBBINS

Specialist, College and University
Business Administration
U.S. Office of Education



Salaries in institutions enrolling 10,000 or more students

Salaries in institutions enrolling from 5000 to 9999 students



IN COLLECTING salary data for analysis in the planning and management study for 1959-60,* the salaries of the president and of 23 other administrative positions were listed, 11 of them having some degree of relevance to the business office function. They are: chief business officer, director of development (fund raising), chief accounting officer, director of physical plant planning, director of student union, superintendent of buildings and grounds, director of food services, purchasing agent, director of nonacademic personnel, manager of residence halls, and manager of the bookstore.

The essential statistical comparisons are illustrated graphically (or appear in the text). Comparisons are given by control (public and private), by salary ranking for each of six enrollment categories, and for each of six types of institutions. In addition, there is incorporated, for comparison, the ranking of the average salaries of five academic levels in the same six size categories. Data for 11 and 12 month salaries and for four-year institutions only are included.

Data From 1433 Colleges

Responses for the complete study were received from 1433 colleges and universities, having 91.1 per cent of the total enrollment of the country in publicly controlled institutions and 80.4 per cent in private ones. Four-year institutions reporting usable salary figures accounted for 796 of the total number. Not all of these positions are to be found in all of the institutions, and wherever there were less

*Bokelman, W. Robert. Higher Education Planning and Management Data, 1959-60. Circular No. 614, U. S. Office of Education.

Being Paid Administrators This Year

**A comparative study of salaries in 12 administrative positions
in four-year colleges and universities in 1959-60**

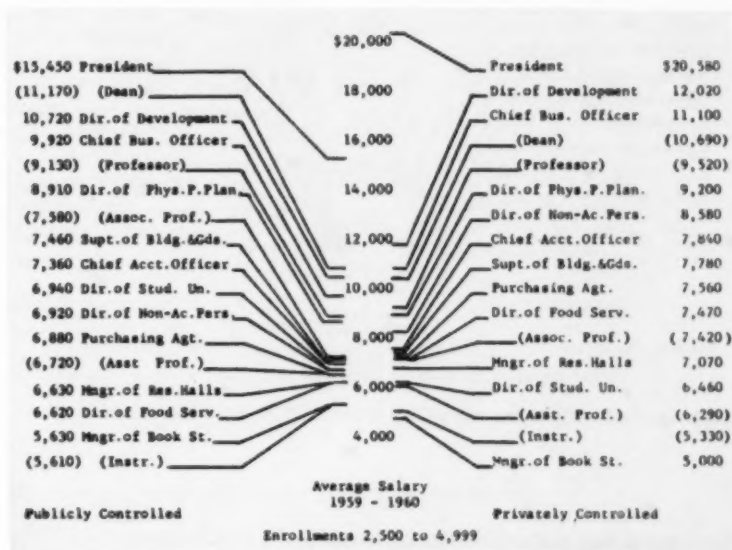
than five representations in a category, the data were not tabulated.

If the average salaries of the chief business officer in public institutions were graphically illustrated a smooth parabola would result, accelerating regularly with the increase in size of enrollment. In private institutions, the graph of the salary of the chief business officer by size of enrollment would appear as a nearly straight line "curve" and not quite so smooth.

In the other 10 administrative positions having some relevance to business office functions, the average salary increases with the size of the institutions fairly consistently. There are a couple of minor exceptions at one or two enrollment levels where the positions are sparsely represented. As to salary ranking, one or two consistent tendencies appear with the increase in size: The average salary of the director of nonacademic personnel in private institutions does not accelerate so rapidly as that of some other positions. On the other hand, the average salary of the chief accounting officer tends to increase slightly more rapidly than some.

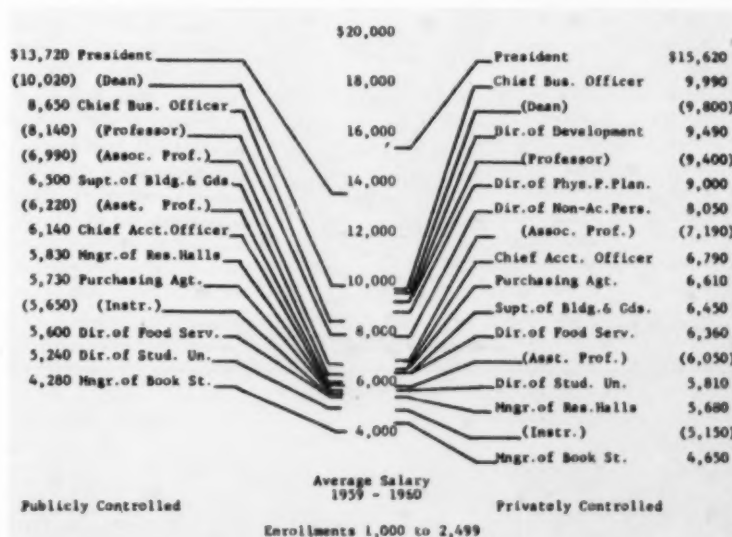
Private Colleges Pay More

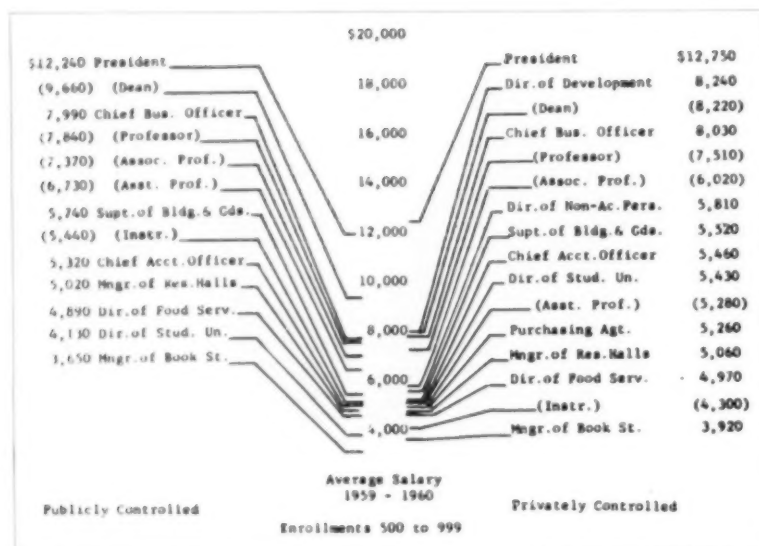
Comparing average salaries in the same position between publicly and privately controlled institutions, size for size, the private institutions tend to pay more at nearly all positions, but the difference is more substantial in the more highly ranked positions. As might be expected, the relative importance salarywise of the position of director of development (fund raising) is greater in private institutions than in public, as shown both in salary level and in the prevalence of the position. He outranks the chief



Salaries in institutions enrolling from 2500 to 4999 students

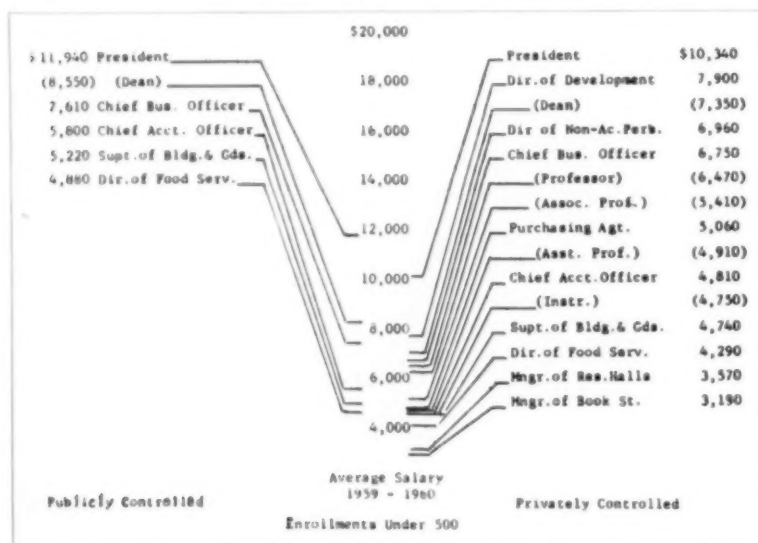
Salaries in institutions enrolling from 1000 to 2499 students





Salaries in institutions enrolling from 500 to 999 students

Salaries in institutions enrolling fewer than 500 students



business officer in three of the six size categories of private institutions — below 500, from 500 to 999, and from 2500 to 4999.

In the questionnaire there was no direction as to converting any partial salary considerations paid in kind — room and board, for instance — into dollar values. Some respondents may have done so and others not. It is quite possible that salary figures and salary rankings of some positions, such as manager of residence halls and director of food services, in some categories of institutions would be improved if the computed value of such considerations had been included.

In comparing salary levels by type of institution, it is difficult to find patterns of salary rank that are not more affected by size than by type. Those types that pay the highest salaries in the counterpart positions are also the types that, in general, have the largest average enrollments, such as universities. This is not consistent among all types, however. Public professional schools and technical schools, on the average, are among the smaller types of institutions in enrollment, but their administrative salaries structures tend to be second and third, or second and fourth.

Among private institutions by type, a similar administrative salary level ranking appears as between those two types, except in reverse order. It is the technological schools that tend to rank second and the professional schools (other than theological) third. However, private technological schools—average larger enrollments than either private teachers colleges or liberal arts colleges. In salary levels, liberal arts colleges and teachers colleges tend to rank fourth and fifth.

Comparing the average salaries of these administrative positions with the five ranks of academic people, as the size of enrollments increases, more of the administrative positions tend to overtake the salaries of the respective academic ranks. No doubt this trend reflects the constantly increasing load of responsibility on the person in the administrative position as enrollments rise, whereas the significance of larger enrollments to the academic staff is to require a larger number of people as instructors. The graph of academic salaries, however, is also one of consistent acceleration, as enrollments rise.

In Other Types of Institutions

In teachers colleges, not represented by a chart, the average salaries for 1959-60 in publicly controlled institutions are as follows: president, \$13,360; director of physical plant planning, \$9840; chief business officer, \$8620; director of nonacademic personnel, \$6750; purchasing agent, \$6290; superintendent of buildings and grounds, \$6270; chief accounting officer, \$6100; manager of residence halls, \$6010; director of food service, \$5740; director of student union, \$5510; manager of bookstore, \$4600.

In privately controlled teachers colleges, the average salaries were: president, \$11,730; chief business officer, \$7500; superintendent of buildings and grounds, \$5380.

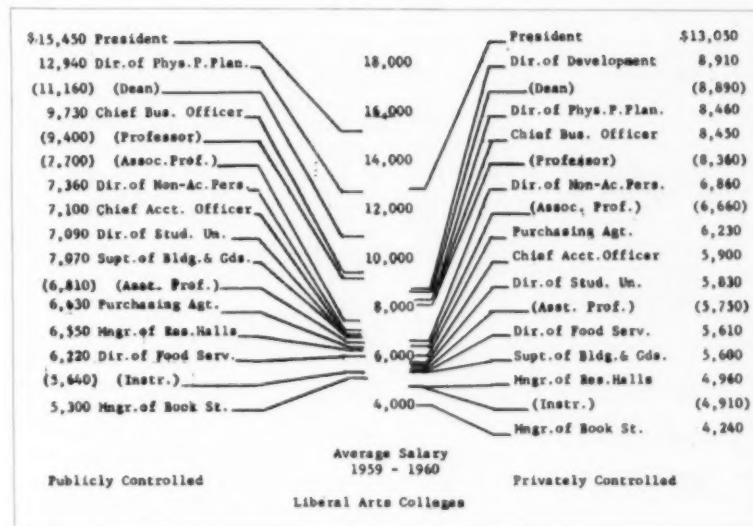
In publicly controlled technological schools for the same period, the average salaries were: president, \$15,280; chief business officer, \$10,300; superintendent of buildings and grounds, \$7240; chief accounting officer, \$6980; purchasing agent, \$6800; manager of bookstore, \$6140; director of food service, \$5760.

In privately controlled technological schools, the average salaries were: president, \$22,860; chief business officer, \$13,210; director of development, \$12,680; chief accounting officer, \$9890; director of nonacademic personnel, \$9450; purchasing agent, \$8970; superintendent of buildings and grounds, \$8520; director of food service, \$7940; manager of residence halls, \$6810; manager of bookstore, \$6550.

Average salaries for 1959-60 for theological schools (all privately controlled) were: president, \$9250; director of development, \$7660; chief business officer, \$6500; director of nonacademic personnel, \$6320; superintendent of buildings and grounds, \$4680; purchasing agent, \$4390; chief accounting officer, \$4370; manager of residence halls, \$3750; director of food service, \$3750; manager of bookstore, \$3380.

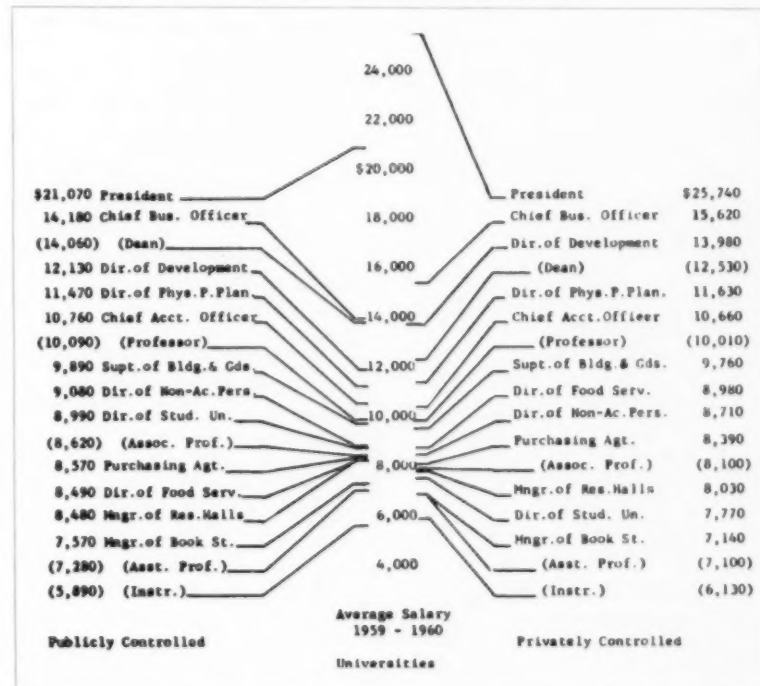
In other professional schools, publicly controlled, the salaries for the year were: president, \$17,830; chief business officer, \$10,840; chief accounting officer, \$7380; superintendent of buildings and grounds, \$7310.

In other professional schools, privately controlled, the salaries were: president, \$14,470; director of development, \$9070; chief business officer, \$8520; purchasing agent, \$6470; chief accounting officer, \$6260; superintendent of buildings and grounds, \$6020; manager of residence halls, \$5940; director of food service, \$5930; manager of bookstore, \$3630. ■



Administrative and academic salaries in liberal arts colleges

Administrative and academic salaries in universities



The Policy Manual

is the key to
institutional
harmony

FRANK D. FULLER
Assistant Business Manager
Hardin-Simmons University
Abilene, Tex.

AT THE ninth annual Short Course in College Business Management at the University of Omaha, the following question was posed to business officers representing 136 institutions of higher learning: "Does the top management of your institution have and maintain a policy manual? 'Policy manual' is defined as a set of documents, perhaps in loose-leaf form, that spell out matters of policy of your institution. *Not* included in this definition are personnel handbooks, operating manuals, and catalogs, since these are generally prepared in conformity with established and existing policies."

This question was submitted to the business officers on a form that provided for a "yes" or "no" answer, and with provision for qualifying comments by those who wished to make them. Of the 136 institutions reporting, only 14.7 per cent had a policy manual, and there was no correlation of "yes" answers with either size or type of institution. The comments included the following excerpts:

"Our president and board seem to feel it best to fly by the seat of their pants." "We have talked about it for several years, but still don't have one, and wish we did." "This would be a very great help to all of us."

Dr. Raymond M. Hughes, who gave 31 years of service in the presidencies of two institutions, made this observation of his work:

"If matters of policy were regularly made a part of the responsibility of the board (of trustees), and if such policies as were adopted were recorded and from time to time codified, a valuable document would result."

The governing board in most institutions will not take the initiative in creating a policy manual, since board members in most cases have no day-to-day exposure to the myriad problems that confront their chief executive, the president. Yet many members, as successful business people, would consider a policy manual indispensable in their own fields of management. A college or university, steeped in tradition and dedicated to perpetuation, is sure to outlive most business interests;

a mere glance at the advertisement of an "annual" of 30 or 40 years ago will substantiate this.

A college is primarily *people* and it exists for students engaged in the learning process; the effectiveness depends upon the quality of the faculty. Surely these elements need a guide more concrete than recalled precedent or foggy tradition or the status quo.

The president, then, is the one who can implement the putting together of a policy manual. His administrative offices have the by-laws, the board minutes, the directives, the catalogs, and other essentials of what constitutes policy. His term of office is relatively short, compared with that of most professors; it *can* be more well ordered and pleasant if a policy manual is silently on guard to avoid pitfalls of judgment errors, indecision or baseless commitments. Once established, the manual can mean a significant difference between amounts of time spent on new, creative work and repetitive detail or explanatory conferences involving vagaries of murky policy.

Pattern for Policy Manual

The only common denominator in higher education administration is that of spending the education dollar for the teaching process, to the end that mankind's needs might be served successfully in some way. While the similarities are greater than the differences, it is impossible precisely to fit the needs of more than one institution with just one policy manual.

When a top administrator surveys the great mass of administrative responsibilities, the elusive starting point might be gained as follows:

- 1000 to 1999 Academic Personnel
- 2000 to 2999 Business Management
- 3000 to 3999 Student Personnel
- 4000 to 4999 Academic Adjuncts

A start in the *compilation* of policy might be made in the foregoing four areas of administration by the respec-

¹McVey, Frank L. and Hughes, Raymond L.: *Problems of College and University Personnel Administration*. Ames: The Iowa State College Press, 1952, p. 63.

tive deans or vice presidents. Compilation is emphasized because the governing board of the institution makes policy; the president executes it through his administrative heads. The board or its executive committee should examine sections of the policy manual during its preparation, so that the whole project could be realistically endorsed by the board upon its completion. The numbering system, readily expandable and of help in mnemonics, is the simplest method of classifying detailed information. Decimals may be used to amplify any desired point of policy. Examples outlined:

- 1,050. *Tenure* (of faculty personnel)
- 1,051. Tenure defined
- 1,052. Point of tenure attainment
 - 1,052.1 Assistant professor
 - 1,052.2 Associate professor
 - 1,052.3 Professor
- 1,053. Invalidation of tenure
 - ... etc.
- 3,500. *Religious Life* (of student personnel)
- 3,501. Modes of emphasis
- 3,502. Nature of chapel and other religious services
- 3,503. Responsibilities of director
- 3,504. Engagement of outside denominations
- 3,505. Student participation in program
- 3,506. Transportation to community churches
- 3,507. Religious holidays and holy days
 - ... etc.

Four basic areas of administration are presented here; others might be added to accommodate the specialized needs of medical and other schools, or even these four might be added to as the chart or plan of organization might dictate.

Business management covers a broad field of activities in most institutions, and a practical approach for policy manual arrangement is one listed by the American Council on Education:² (1) accounting, auditing, reporting, and budgetary control; (2) receipt, custody and disbursement of monies; (3) investment of funds; (4)

procurement; (5) management of the auxiliary and service enterprises; (6) operation and maintenance of the physical plant; (7) selection and promotion of nonacademic personnel; (8) administration of staff benefit plans.

These subdivisions can be readily detailed through the proposed numbering system: The first item can be numbered 2,010. to 2,019., for example, and any number of *policy* details can be included, through decimals, within this block. Care should be taken to keep operational procedure details from cluttering up the policy manual; they should be placed in a handbook or accounting manual for employee distribution.

The faculty personnel section might include clear-cut policy on such matters as outside work and income, sabbatical year, moving expenses, employment of spouse, research requirements, and so on. Since the quality of a faculty group is so often used in determining the cultural worth of an institution to its publics, most administrators exert major efforts in obtaining the services of able, strong and scholarly personnel, which is no mean achievement in this day of glowing dollar inducements from brain-hungry industry.

Once the new professor is wooed and won to the university team, he wants to proceed in his chosen work with a minimum of red tape. It is a wise administrator who recognizes this singleness of purpose, and then dedicates a program of administration that will promote harmonious faculty-staff relationships and thus add valuable psychic income to his strained resources.

Clear and Consistent Policy

"The secret in education," wrote Emerson, "lies in respecting the pupil." College students, ever discerning and often critically so, need to be governed under unmistakably clear and consistent policy. The student personnel section of the policy manual includes such usual student regulations as selection and admission requirements, orientation, social opportunities, publications, health program, and welfare.

Student life, in all of its ramifications, can be almost ruthless in its demands upon a president's time and concern. The time spent with students should be pleasant, and might well be used to generate good will of the kind

that later builds buildings and endows scholarships. A policy manual might not build esprit de corps directly, but it can untie a president's hands so that he can more frequently and freely communicate with his student body.

The final section of this proposed policy manual, "Academic Adjuncts," is devoted to matters of broad policy that transcend departmental lines and affect the entire operations of the college or university. The charter, by-laws, board actions, and legislative or denominational regulations are assigned to this section. Public relations and constituency relationships demand policy treatment; so do intercollegiate athletics, library operations, teaching aids, and the R.O.T.C. program. Reference to the institution's organization chart will readily suggest appropriate placings for these and other functions within a policy manual. The fiscal element attaching to any organizational function should be confined to the business management section to avoid needless repetition.

Analyze for Inconsistencies

If we assume that the policy material was gathered by sending blank loose-leaf notebooks to each of the four (or more) officers of administration concerned with the sections of the policy manual, the material upon its return must be carefully analyzed for inconsistencies or omissions. Matters of needed policy will be aroused, and such questions usually will be decided after sister institutions and local precedents have been checked. Such "new" policies should be tempered with the institution's own experience whenever possible; no organization should be turned upside down when its very stability is being scrutinized and, surely, undergirded.

After proper presentation of the completed policy manual has been made to the board for its official acceptance of the responsibilities contained therein, then the "valuable document" referred to by Dr. Hughes has officially come into being. Sections (or all of it) may be duplicated and placed in the cabinet officers' hands for ready reference in everyday problems or in the preparation of catalogs or other publications. The manual will remain in loose-leaf form, however, so that its currency will match the demands of a dynamic society, the society to which our work is dedicated. ■

²The National Committee on the Preparation of a Manual on College and University Business Administration, Vol. 1 (Washington: American Council on Education, 1952), pp. 3, 4.



Flexibility Follows Remodeling

W. P. HOOPER

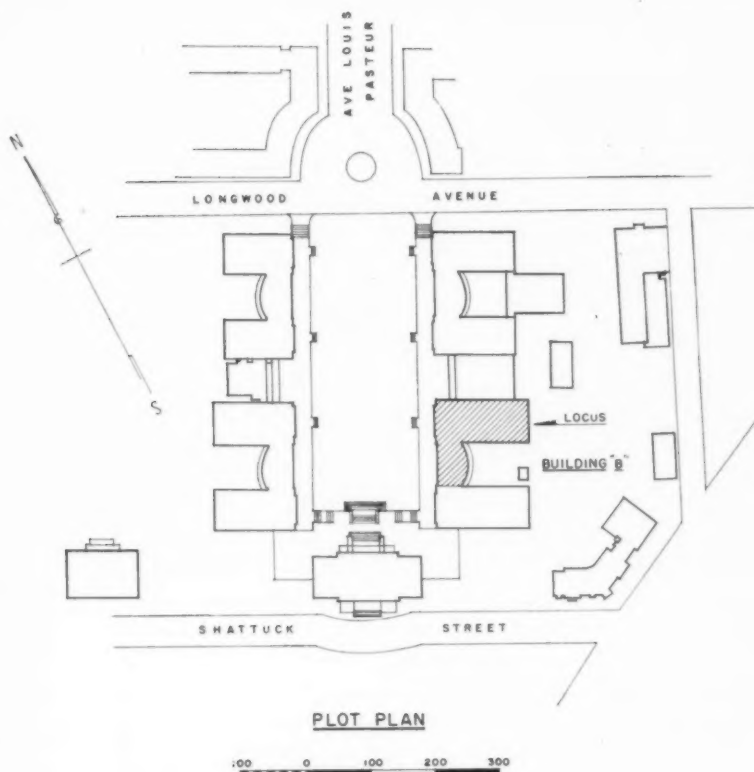
Superintendent, Medical School Area
Department of Buildings and Grounds, Harvard University

Harvard Medical School brings a 50 year old building up to 1960 standards of construction, adding floors, air conditioning, and, more important, flexibility.

THE principal buildings of the Harvard Medical School, as shown on the accompanying plot plan, were built more than 50 years ago. Four of the five buildings facing the quadrangle were designed for teaching, and each contained the usual classrooms, laboratories, offices and an amphitheater with a seating capacity of 275. Each building was designed to be a complete self-contained unit. The fifth building contains the administrative offices, the library, and the medical museum.

The construction consists of brick walls faced with Vermont marble, steel frame, concrete slabs, and interior partitions of terra cotta or gypsum, plastered. In general the floors are wood; doors, except in fire enclosures, are wood; windows are wood, double-hung. Ceiling heights vary from 9 feet 4 inches to 19 feet 4 inches. The actual heights in Building B, which we have remodeled, were: first floor, 13 feet 6 inches; second floor, 19 feet 4 inches, and third floor, 17 feet.

Medical research is advancing rapidly and is increasing in volume, and the methods of teaching medicine have changed drastically since these



PLOT PLAN of Harvard Medical School. The principal buildings are more than 50 years old. The one building that has been remodeled is described in this article.

buildings were constructed. Therefore, the administration decided that we should remodel one of our buildings for the use of anatomy and pharmacology research, with the idea in mind of obtaining additional floor area and the greatest possible flexibility, in order that future space changes might cause the least disturbance to the building and its occupants. Instruction in these two subjects will be relocated in other areas temporarily, and it is hoped that new teaching buildings can be constructed in the near future.

With our old construction, alterations that had to be made to accommodate changes in space requirements or services were upsetting to those in the laboratories or rooms involved, and other areas, for some distance away, were handicapped by dust, dirt and construction noises. Furthermore, these jobs were time consuming and expensive. Often it was necessary to cut through several floors to get essential services for the new setup, and to cut off services from several rooms during the change-over.

Our architects and engineers proceeded to hold conferences with both departments, sketches were made and

approved, working drawings and specifications followed, and a contract was signed for the reconstruction. Since it was necessary to use one wing of the building for teaching during the period of remodeling, the work was designed to be done in two phases. The second phase, which completes the work in the entire building, was started at the end of the semester in February.

Typical Room 10 by 20 Feet

A typical room module of 10 feet by 20 feet was determined for the main part of the building. Conditions in the connecting link made a somewhat different scheme necessary.

The existing structural members were reinforced, as required, to carry two new floors in the main wing and three in the former amphitheater area. This increased our floor area by 24,316 square feet.

It was decided that plastering should be held to a minimum and that the main corridor walls would be built of a light gray, slightly mottled, enameled brick with a matte finish. Some walls in the main stair hall are of red brick to give contrast and some architectural treatment.

Walls of toilet rooms are built of cinder blocks with a high ceramic tile dado and plaster above, to the ceiling.

All partitions, other than those previously mentioned, are of the movable type. These consist of asbestos cement insulating panels, 1 9/16 inches thick, supported by metal structural members. Partition bases are of anodized aluminum. As can be seen in the photographs, the panels are laid out to accommodate the laboratory equipment. The same system is used for furring the exterior walls and service shafts. With this type of partition it is possible to attach piping, shelving and cabinets directly to the structural members, a great advantage.

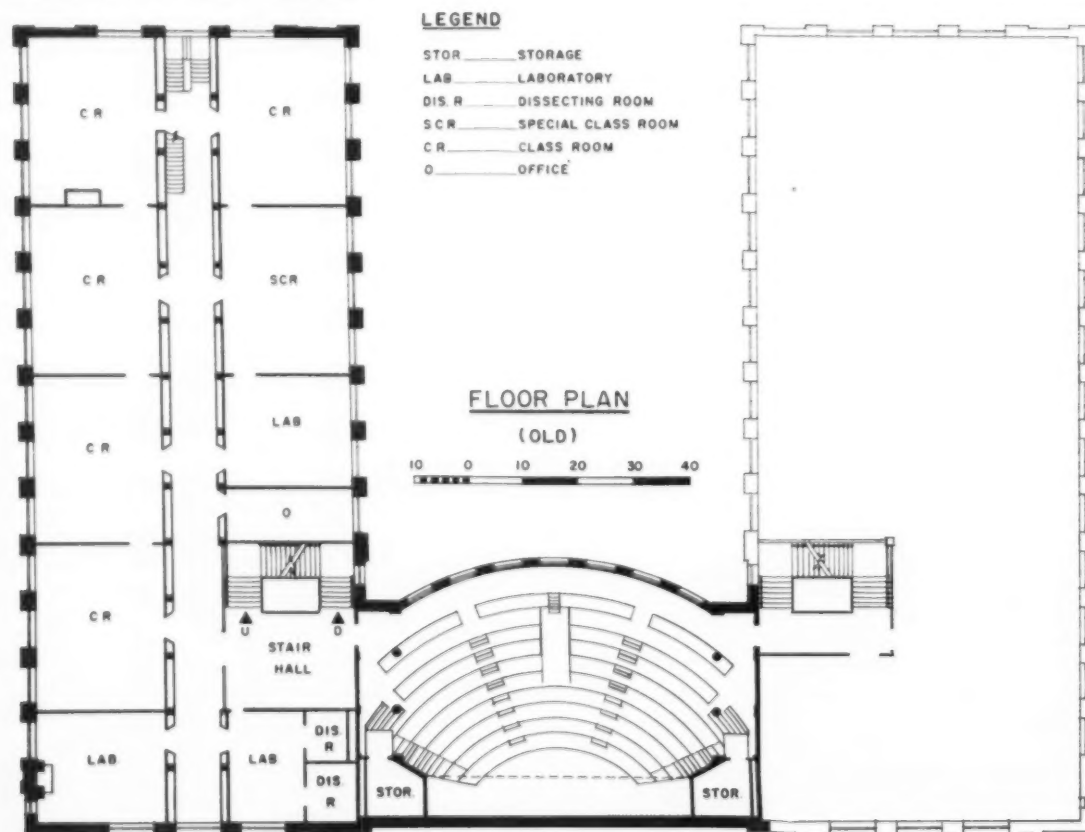
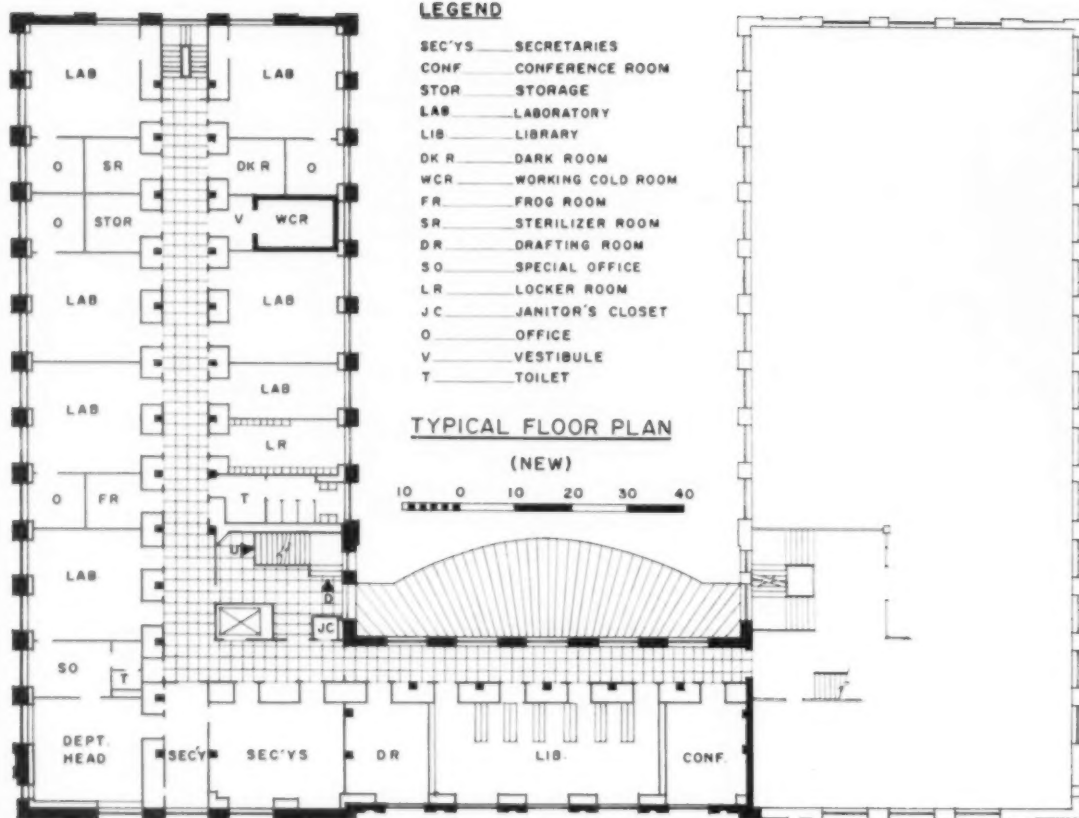
The offices of the heads of departments are finished in cherry plywood, which is attached to the movable partitions. All solid lumber is cherry to match. This is finished with one coat of water white lacquer and two coats of white wax, well buffed. The ceilings are acoustical tile; the floors are cork. Furnishings are walnut, and the rooms are most attractive.

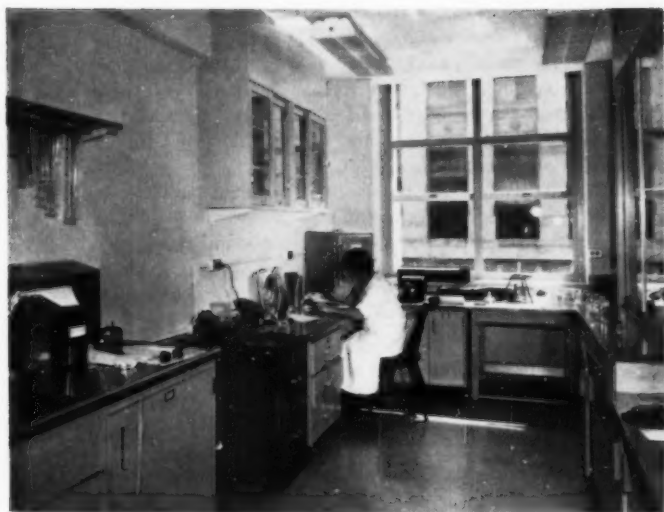
Finished floors in general are of vinyl asbestos tile, except in the temporary animal areas where hot mastic was used. Department offices and libraries have cork tile floors.

Acoustical tile is used in corridors and where ceilings are furred. All other ceilings are painted concrete where new slabs were installed and plaster where the existing slabs remained.

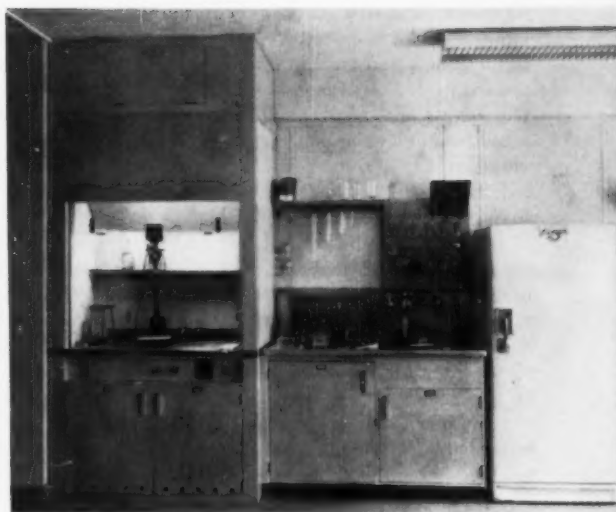
All doors throughout the building are of the solid core oak-veneered flush type, except where fire laws specify metal. These are hung in combination metal frames and bucks.

As far as possible, all units of laboratory equipment are designed





SINGLE MODULE laboratory. Even the equipment units are on a 5 foot modular basis to allow for flexibility.



HOOD AND SINK DETAIL. Working tops of both the sinks and fume hoods are constructed of stainless steel.

on a 5 foot modular basis to allow for more flexibility in its use. Furthermore, laboratory benches, except those used for chemistry, have no attached services. These are located on service shelves attached to the partitions.

Laboratory cabinets, wall cases, and benches are made of oak, given a light finish. Bench tops are maple, with an acid and solvent resisting finish. We decided to use wood tops after many different materials had been tested, none of which seemed wholly satisfactory. If in the future a really good top material is discovered or developed, these tops can be replaced without too great a loss. Also, it is a simple matter to replace, repair or refinish them.

Sinks and fume hood working tops are made of stainless steel. The upper parts of the hoods are built of asbestos cement with the exterior of oak and the slide-up doors of safety glass. There are remote control valves on all services in the hoods.

The building is completely air-conditioned. The system was designed to supply large quantities of outside air to furnish make-up air for hoods. This eliminates local fan coil units and conduit systems handling small quantities of outside air. Double duct was considered but because space was available for normal risers and, as only five stories were involved, a low-pressure duct system

was chosen as being more economical. Previous experience indicated that breaking up the building into nine vertical zones would put few enough modules into each zone so that, with the normal tolerance of temperatures allowable for summer air conditioning, acceptable conditions would be obtained.

A fin tube hot-water radiator of the sectional type was installed in each module. Each radiator has an automatic valve and pneumatic piping and can be controlled by its own thermostat, but thermostats were installed only for each space originally partitioned.

The hot water for the radiation was taken from mains from the boiler plant. The temperature of this water is regulated to serve cast iron radiation. A steam converter controlled by an outdoor master thermostat and a submaster on its steam valve supplies supplementary heat to give temperatures that match those required by the radiators.

Air Conditioning

The medical school has available a large steam plant and its capacity is largely unused in summer, so it was decided to use excess summer capacity by installing an absorption machine to produce chilled water. As a pair of unused brine lines between the building and the power plant were available and as there was no

suitable location for a machine or tower at the building, they were installed at the powerhouse more than 1000 feet away.

The air conditioning system was based on supplying a minimum of 435 c.f.m. to each module so that a hood could be placed in any module without being dependent on obtaining air from other modules. Past experience had shown that hood locations over a period of time tend to have high densities in certain areas of laboratory buildings. The following scheme was used to avoid scarcity of exhaust capacity in these areas: The exhaust duct risers and mains were designed to handle 100 per cent of the sum of the required air quantities, but each fan was designed for only 80 per cent of the total. The absorption unit was sized to handle enough total outside air load so that hoods could be placed in 50 per cent of the modules.

The construction of the intermediate floors and the resulting moderate floor-to-floor height necessitated the elimination of as much horizontal ductwork as possible. A vertical system of supply, recirculation and exhaust was used. Extra height on the first floor made ceiling diffuser distribution possible on this floor, but the other floors had to be supplied with side wall registers.

The vertical shafts at the corridor wall of each module contain plumb-

ing risers, exhaust ducts, and recirculation ducts in every other shaft, and supply ducts and electrical risers and panels in the alternate shafts. The plumbing shafts constructed at every other module at the outside wall also are used for hot-water risers to the radiation.

As the supply units were located in the basement and the exhaust fans on the roof, the space left by the diminishing area of the returns was taken up by the increasing area of the exhaust risers as they rose to the roof penthouse in which the exhaust fans were located.

Headroom and space both in the basement and penthouse are limited so that multiple exhaust fans and supply units were used to minimize horizontal duct runs in these areas. As units had to be kept small with short duct runs, it was possible to use multizone units for the smaller zones.

Special Hood Designed

Ceilings were too low to permit use of the standard hood that takes a fixed quantity of air from the room whether open or closed. This is usually done by admitting air to the hood plenum through a characterized slot that the hood door uncovers as it is lowered to close the hood opening. Instead, a hood was designed with a chain and sprocket operated characterized damper to give constant velocity over the hood opening as the door was raised or lowered. An exhaust grille was set in the exhaust duct with a guillotine damper. This damper was connected by a cable to a pulley on the shaft operating the damper so it would open as the hood door is closed. In areas in which exhaust exceeds 25 per cent of the total air circulated, the guillotine damper was placed on a return grille so that the room air would be returned when the hood door was closed.

Three fresh air intakes with filters and preheat coils supply air above freezing to the supply units.

Fresh air intakes were sized so that 100 per cent outside air can be used for cooling in intermediate weather without the absorption unit being run. A relief system was installed to carry the excess air from the rooms to the outside by means of the return ducts when the fresh air dampers are open and the re-

circulation dampers at the units are closed. This economy system is automatically operated by the temperature control system in accordance with the outside temperature.

A central control graphic panel was installed that allows the operator to read temperatures at this panel in various parts of the different zones. Units are controlled by return air temperature, and the control point can be reset from the panel.

Starting switches for the fans, pumps and supply units in the building are also located on this panel.

Plumbing design was based on having all normally needed laboratory services available in each module.

Cold and hot water, gas, compressed air, distilled water, steam, and a waste and vent stack were installed in every other vertical shaft on the corridor end of the modules. The two modules adjacent to this shaft were then supplied from these risers. At the alternate division between modules on the outside wall a shaft was installed with a waste and vent. All pipe risers have valves and capped tees at each floor so that future connections can be easily made.

Chilled water was piped to dark-rooms and frog tanks from a central self-contained chiller. City water was filtered through a diatomite filter before entering the chiller.

Hot-water circulation for mains was obtained by a basement loop system. Circulation for the risers was accomplished by oversizing the risers, so circulation would take place within the riser.

Laboratory waste and vent risers and drains from laboratory areas are acid resisting pipe.

Services From Tunnel Mains

All services except distilled water were taken from the tunnel mains. The distilled water system has a gravity feed supplied from two 15 gallons-per-hour steam heated stills located in the penthouse. A polyvinyl chloride piping system is used for distribution.

Cold-water risers were sized on a fixture unit basis of six outlets per 10 foot module per floor. Hot-water risers were sized on a fixture unit basis of two outlets per 10 foot module per floor, except that riser size was increased for vertical circulation.

Gas risers were sized on 10 outlets (15,000 Btu./outlet) per 10 foot module per floor with a 40 per cent usage factor. Waste and vent risers were sized on a fixture unit basis of three sinks per 10 foot module per floor.

The layout of electrical facilities in this building was designed on the basis of the 10 foot modular unit.

A lighting system giving a maintained intensity of 50 footcandles was obtained by the use of six low brightness two-lamp fluorescent fixtures per module group controlled by one switch in each modular unit.

A.C. and D.C. Circuits

Two distinct and separate systems of energy, alternating and direct current, were made available in every 10 foot module for laboratory experimental work. In order to provide adequate capacity for laboratory work, a load of 5 watts per square foot of floor area was used as a basis of design. A combination subpanel having 10 A.C. circuits and eight D.C. circuits was installed in each 10 foot modular unit.

Vertical feeders were installed from main distribution panels located in the basement corridors. Each feeds two subpanels per floor on five floors. Riser capacity was based on 50 per cent demand of the connected load of 10 subpanels. The feeders from the main distribution panels to the switchboard were designed on a diversity of 80 per cent of four such vertical feeders. Both systems of wiring were installed in separate raceways to feed various and distinct types of grounding receptacles in the modules to afford a wide selection of amperage and voltages in each modular unit. Telephone service was made available in any laboratory from junction boxes installed in each 20 foot module.

We believe that we have obtained a good degree of flexibility and that the building is now good for another long period of use as it has been brought up to 1960 standards of construction.

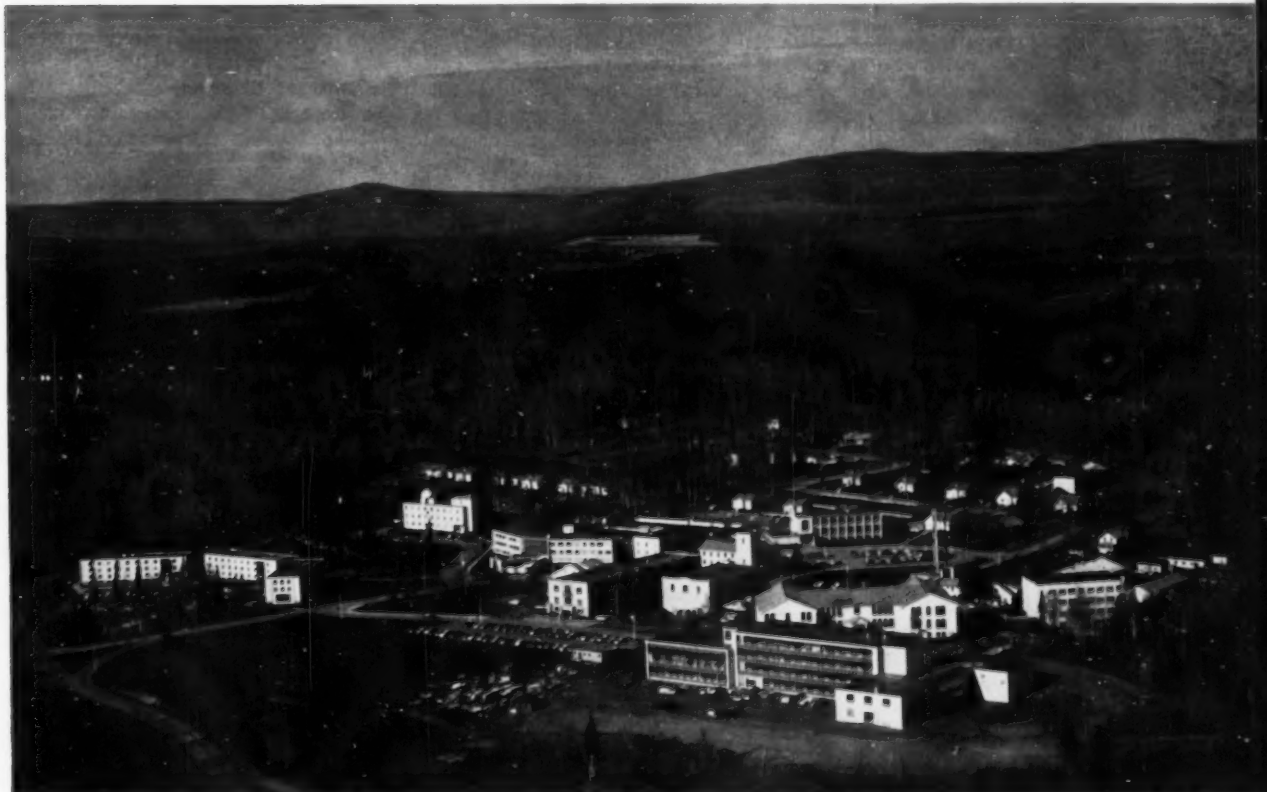
The architects were Shepley Bulfinch Richardson & Abbott; structural engineers, Abraham Woolf & Associates; mechanical engineers, Cleverdon Varney & Pike; contractor, John A. Volpe Construction Company, all of Boston. ■

Growing Pains Assail University of Alaska

STATEHOOD for Alaska and the publicity resulting from it have expanded a problem with which the University of Alaska has struggled for years — the problem of growing pains. This problem appeared following World War II as a result of a general population increase, but it was accentuated by the return to Alaska of

servicemen who had been stationed here and by establishment of more defense bases by the armed services. This was the first time that substantial groups in the 48 states had become aware of the existence of the University of Alaska—or even of other opportunities available in Alaska. The growing pains were further aggra-

CAMPUS of University of Alaska comprises 2249 acres. This aerial view, taken recently, shows some of the newer structures of the 49th state.





COMPOSITE BUILDING, completed in January, is named for the university's first president.

vated by the nature of the physical plant on the university campus. Many of the buildings were of frame construction and all were old. Furthermore, the campus plan and structural features were ill adapted to orderly expansion. No comprehensive or master plan of the campus had been prepared previously. High costs of construction (double that of the States) tended to encourage "temporary" or frame construction and prevented resort to amortization of revenues (as for residence halls) to finance new structures. A territorial ban on bonding also placed the whole burden of finance upon direct appropriations of the territorial legislature.

Enrollment increased from less than 100 during the war to approximately 300 by 1950, a 200 per cent increase. No new construction appeared, but temporary buildings were moved on campus. Planning started in earnest in that period. Between 1950 and 1957, on-campus enrollments increased to 700, more than a 100 per cent increase. Extensive construction of a permanent nature appeared, and efforts were made to follow the general plan previously started. However, a comprehensive study to forecast long-term needs now reveals that by 1962 there will be more than 1400 students on the campus, another 100 per cent

increase. A reevaluation of the master plan, and possibly a complete revision of it, are now intended.

It became apparent late in the "G.I. era" that the crowding from 1945 to 1949 was not a problem that would dissipate when veterans were graduated. It was recognized as the beginning of wholesome growth, and a "plan" was needed to assist in meet-

ing the growth properly — and also to replace the old buildings. The campus structures, all built between the years 1922 and 1926, were of tinder-dry frame construction, except for the concrete power plant, one 80 unit women's residence hall, and two administrative buildings of concrete shell construction. Needing complete replacement were three men's dormi-

FEDERAL FUNDS matched territorial funds to construct this Student Union. Other buildings were similarly financed. Statehood is changing the pattern.



tories (including the cafeteria), the large main classroom building, and several lesser frame buildings.

A professional planner was engaged to prepare a master plan and a firm of mechanical engineers and architects was engaged to prepare the plan for heating and power plant, and utilities lines. These plans were placed into effect in 1952. They included time schedules for expansion and extension, and drawings and specifications of walk-through utilities tunnels, power, water, sewer, telephone, steam and condensate lines, with sizes and capacities contemplating ultimate requirements. The plans cost approximately \$20,000. Simultaneously, there were constructed a School of Mines Building from territorial funds, and the Geophysical Institute Building from a federal grant, both of reinforced concrete.

Federal funds on a 50 per cent matching basis became available for further construction as a result of the Alaska Public Works Act, designed to relieve the territory of part of the cost of utilities, schools and so forth required to accommodate the large military populations placed in Alaskan communities. The University of Alaska used this program with territorial appropriations to finance a girls' residence hall for 100, a classroom building, two men's residence halls (replacing three frame dormitories), a student union building (with cafeteria), street paving and lighting, heating plant expansion, utilities extension, an apartment building for married students, and, finally, a large composite building including classroom space, administrative offices, a library, and a small auditorium. This last named structure, which was completed in January, is called the Charles E. Bunnell Memorial Building, honoring the first president of the institution, who started the school with six students in 1922 and retired in 1948.

Plan Difficult To Maintain

While the A.P.W. construction was being done, heavy appropriations for this and other construction were received from the territorial legislature, laws were passed enabling the university to resort to bonding for certain other buildings, and the master plan became increasingly more difficult to maintain. Although the site property is ample (2249 acres), construction



PRESIDENT'S HOUSE is no carbon copy of other presidential mansions, but is appropriate to the setting. University enrollment doubles every few years.

costs require considerable concentration of buildings near utilities sources, yet the need for a new structure is exceeding the plan and financial capacity under presently known means. Bond borrowing has enabled us to finance (via H.H.F.A.) eight faculty residence units, another 12 unit married student apartment, another 100 man residence hall, and extend the women's dormitory. Still this is not enough.

Statehood resulted in the termination of Alaska Public Works federal "impact" construction funds, and new philosophies of government and other factors virtually stopped direct state appropriations for construction. A general capital improvements survey has been made for all of the state agencies, which projects their needs over six years. As part of the state survey, the university set its needs for this period at \$14 million for on-campus construction. Means of financing the whole construction program is being worked out by the state legislature. Presumably, it will be by general and revenue bonds — and may be drastically reduced under presently considered needs.

An exhaustive census recently completed promises another 100 per cent enrollment increase within three more years. It has been supplemented by a comprehensive five-year prospectus. The prospectus is a detailed budget

for all operating departments, construction needs, personnel and curricular expansion for the next five years, and at this moment does not offer a means of financing the necessary construction.

Direct appropriation for construction would be too heavy a burden on the new state. Revenue bonds will be used for some housing units, but this is limited by high construction costs, which would set rentals at ruinously high rates if bonds were to be fully amortized from income. General obligation bonds of the state may be used for some buildings, but a deep-seated aversion to public debt in Alaska will doubtless hold it to a low figure. Bonds secured by future academic fees are being considered, but use of such fees would increase the need for annual operating appropriations. Fee increases have already been inserted into the proposed budgets to alleviate these annual demands. Some restrictions on entrance are planned to hold enrollments down, but a public land-grant institution is obligated to hold its doors open fairly wide.

Grants have been obtained from the Ford Foundation and Educational Facilities Laboratories, Inc. to finance a survey of facilities and a comprehensive plan of development. Experienced, nationally known planners, educators and architects have been employed to conduct this study. ■

TAX ADVICE TO PROSPECTIVE DONORS

*and reliable advice, too,
must be provided by
the college or university*

T. E. BLACKWELL

Educational Management Consultant
Washington University, St. Louis

IN THESE days of high taxes, those seeking to persuade others to give must be prepared to advise them as to the tax implications of the gifts. Many colleges have found it desirable to prepare, with the aid of counsel, booklets in which the needs of the college are stated and tax legislation, regulations, rulings and decisions are discussed in relation to gifts and bequests for the support of higher education. Specific examples permit a prospective donor to visualize more vividly the tax relief he can obtain.

Although it is a matter of common knowledge that a charitable gift may be deducted from gross income before the calculation of federal income tax, those soliciting such gifts should be prepared to cite the exact provisions of the federal and state statutes on the subject and, by carefully prepared tables and examples, show the net cost of gifts made by individuals in the various tax brackets, and by corporations. In addition to brochures for prospective donors, some colleges have found it desirable to prepare detailed manuals of procedures to be used by those soliciting gifts and bequests.

The American Alumni Council has taken an active role in this area. Its Educational Fund Raising Guide is proving to be of inestimable value to member institutions. The most recent publication of the Educational Fund Raising Service of the Council is entitled, "Tax Deductions and Exemptions of Gifts to Educational Institutions," prepared by Edward T. Applegate, a member of the faculty of the college of law, Ohio State University. This comprehensive study covers, in detail, federal and state income, inheritance, estate gift and franchise tax laws as they pertain to gifts and bequests for educational and other charitable purposes.

One aspect of this legislation is of special importance to institutions soliciting gifts and bequests from alumni and friends residing in other states. It

is somewhat surprising to see the extent to which many states attempt to restrict gifts and bequests of their citizens to local institutions. The rationale of this attitude is not difficult to understand. The basic justification for granting tax relief to charitable institutions and to those contributing to their support is the fact that such organizations are performing functions that would otherwise be supported by tax derived funds. Gifts and bequests to institutions outside the state do not lift a tax burden from the shoulders of its citizens. Why, then, grant tax exemption to such philanthropy?

According to Professor Applegate, the following states decline to grant exemption to bequests to educational and charitable institutions for use outside their borders: Alaska, Idaho, Maryland, Montana, South Carolina, Texas (unless the gift is "irrevocably committed" to use in Texas or within four contiguous states) and West Virginia. Of the states and jurisdictions levying an income tax, the following refuse to permit gifts for use outside their borders to be deducted from gross income before the computation of the tax: Alabama, Alaska, District of Columbia, Hawaii and Wisconsin. In Colorado, Mississippi and New York, residents may deduct gifts to both foreign and domestic institutions, while nonresidents are limited to deductions of gifts to domestic institutions.

Drawing From Wider Area

However, the value of reciprocity in such matters is becoming increasingly evident. Educational institutions are drawing both students and financial support from a much wider area than in the past. The following states impose a tax on bequests for charitable purposes to be utilized beyond their borders, but waive the tax if the resident state of the donee institution does likewise: California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts,

Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Wisconsin and Wyoming.

The Dec. 3, 1959, issue of *Higher Education and National Affairs*, published by the American Council on Education, reported that negotiations are in progress between representatives of Canada and the United States for the purpose of extending the concept of tax exemption reciprocity with respect to charitable bequests. Following is an excerpt from a letter of President Arthur S. Adams to the U.S. Treasury Department based upon recommendations of the Council's committee on taxation and fiscal reporting to the federal government.

Excerpt From Letter

"The committee strongly urges that it is in the best interests of U.S. institutions of higher learning and U.S. education as a whole that the convention as amended include a provision granting Canadian residents a deduction against the Canadian estate tax for charitable bequests to U.S. institutions . . .

"Because of the close relationship between the United States and Canada, the inclusion of such a provision would be especially beneficial to U.S. educational institutions. Many colleges and universities which are members of the American Council on Education have a substantial number of alumni residing in Canada. These institutions look to these alumni as a major source of funds which will enable them to continue and improve their educational activities in the United States. Without such a provision, this important source of support for U.S. educational institutions will be lost. In view of the fact that benefactors of Canadian institutions residing in the United States now enjoy the full benefits of such a provision, it seems hardly debatable that its inclusion is in the best interests of the United States." ■

A study of

Group Insurance Benefits in Forty-Five Colleges

FRANK F. MORRIS

Director, Department of Personnel Services
Pennsylvania State University, University Park

AS A staff member, have you ever wondered how your institution's group life insurance plan compares with plans at other colleges and universities? If so, you might be interested in the results of a survey we made in December 1959.

We sent out questionnaires and received information on plans at 44 schools. Along with our Penn State plan, this made a total of 45 studied. In these 45 plans, 135,000 employees are insured, or an average of 3000 per institution. Here's what we learned.

1. What's the basis for figuring how much insurance an employee gets? Most frequently the amount of insurance is related to your salary; as you get increases in salary, your insurance increases. This method is used by 21 schools as follows: nine give you an amount equal to your salary; eight an

amount twice your salary (at two of these it is three times your salary if you're married); four make it 15 per cent of your salary.

Fixed amounts that don't increase when your salary increases appear in 18 plans. These schools use rank, length of service, sex, age and the like to identify the insurance coverage for you.

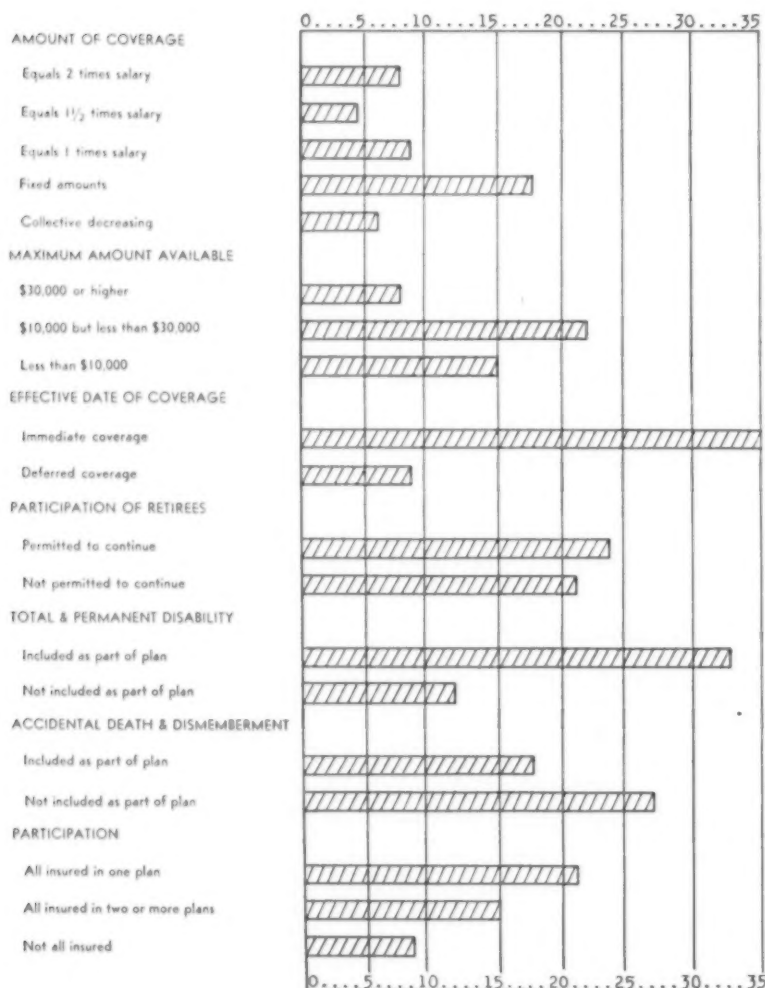
Six institutions use "collective decreasing insurance": Your insurance coverage is highest at the start of employment and decreases yearly. However, the total cost to the employee stays the same through the years.

2. What are the maximum amounts of insurance available? The maximum is \$30,000 or higher at eight schools; \$10,000 but less than \$30,000 at 22, and less than \$10,000 at 15.

3. How long do you wait after you start work before you're in-

**Faculty and staff members can compare
their school's insurance program with
those of other colleges on seven points**

Graphic Report of Life Insurance Provisions for Full-Time Employees of 45 Colleges and Universities, December 1959



sured? You're covered by insurance the day you start work in 36 of these colleges. There's a waiting period at the other nine.

4. What happens to your group life insurance when you retire? You can "take some (or all) of it with you" at 24 of these schools. The other 21 don't allow retired employees to continue in the group plan.

5. What about protection if you should become totally and permanently disabled? At 33 schools you'll be insured during your disability and won't have to pay for the insurance. Also, a few permit you to get the proceeds of your insurance in monthly payments; one pays you the full amount in *one* payment. Twelve schools don't have any provision for insuring disabled employees.

6. What about payments for accidental death or loss of eye, arm or leg? You get the "accidental death and dismemberment" feature at 18 institutions. (The others don't have it.) This feature provides for an *additional* payment to your beneficiary in case you die accidentally, usually an amount equal to the amount of your life insurance. It also pays you specified amounts if you lose either or both eyes, arms or legs.

7. If you aren't a faculty member, are you in the same insurance plan as the faculty members? Yes, in most schools. But in some colleges there are two or more plans: (a) a plan for faculty and administrative officers, and (b) one or two other plans (with less coverage) for other employee groups. And in some institutions you don't have any insurance at all if you're in a certain group (female employees, student wives, unskilled laborers).

In addition to these main points, it was interesting to learn that many schools provide free insurance. The amounts are usually designed to cover funeral expenses; they range, for the most part, from \$500 to \$2000. However, one institution provides \$10,000 free.

Another feature that may become more popular in the future is life insurance for dependents (in those states in which this is legal). Two of the reporting institutions allow you to insure spouse and children in amounts up to \$500 each. ■

What's Ahead in College Food Service?

**An industrial engineer and an authority
on student feeding takes a look behind and ahead
in this, the first of two articles**

JOHN W. STOKES

John W. Stokes & Company
Food Management Consultants, Boston

IT HAS been said, "We learn from history that we do not learn from history." As it concerns man's relations with his neighbors over the ages, this is undoubtedly valid. Nevertheless it is worth while briefly to scan the history of educational agencies and the collateral development of methods of feeding students, faculties and staffs from the early beginnings. Thus we may take pride in the progress made and at the same time enlarge our understanding in order better to deal with current problems in the food service field.

Although schools were known in the ancient civilizations, records of their methods of food service are scant. Plato is said to have entertained favorite students at dinner in his home following lectures in the Academy.

The universities established in Europe during the Twelfth Century were not groups of buildings but rather societies of teachers and students. The latter boarded with the townspeople and got their meals as best they could.

Oxford and Cambridge. At Oxford, founded in the latter part of the Twelfth Century, and Cambridge, in the following century, students lived in their quarters and, with the help of servants, provided their own meals. Eventually dining halls were erected where the common evening meal was conducted with considerable ceremony, the dons occupying a high platform in front. These methods of food

service have continued to the present day, although greatly modified by current economic conditions in England.

English Public Schools. The English "public schools," such as Eton, Harrow and Rugby, grew out of the religious institutions of the Middle Ages. They are essentially private boarding schools as we know them in this country. A hundred years ago the food served in many of these schools was deplorable by modern standards. It has been said that Dotheboys Hall, the school described by Dickens in "Nicholas Nickleby," was no isolated example of either the administration or the food service of English boarding schools at the time. The prevailing feeling seemed to be that the enjoyment of food or other amenities by children was likely to stimulate them to evil.

American Secondary Schools. Nevertheless, it was after the English "grammar" schools that the first secondary schools of the United States were modeled. The Boston Latin School, founded in 1634, and schools in other American colonies were patterned after the English schools in which their founders had been educated. An epoch making statute of the Massachusetts general court (legislature) in 1647 made it compulsory for any town having 100 or more households to set up a grammar school. This act marked the beginning of public education in the United States.

During the Nineteenth Century many private schools were established in this country under denominational

or governmental auspices or through private initiative or endowment. By 1952 there were, according to the U.S. Office of Education, some 1800 private schools. This compared with 24,000 public high schools at that time.

Feeding, in the early days of private schools and academies, both for boys and girls, was invariably in the form of table service with student waiters or waitresses. More recently cafeterias and snack bars have come into wider use.

American Colleges and Universities. Food service has played an important part at Harvard, this country's oldest college, from its inception in 1638. In his book, "Diets and Riots," A. M. Bevis gives vivid and amusing accounts of the students' reactions over the centuries when the food served did not suit their tastes.

Under President Lowell (1909-33) a department of dining halls was organized under capable leadership. Since 1931 members of the three upper classes of the college have lived in "houses," where table service is provided. In recent years, modern cafeterias have been provided for the various schools of the university, all operated by the dining hall department.

By 1776 ten universities had been established in the American colonies. In addition to Harvard there were William and Mary (1693), Yale (1701), Princeton (1746), Washington and Lee (1749), Pennsylvania (1751), Columbia (1754), Brown (1764), Rutgers (1766), and Dartmouth (1770). In each of these, various forms of food

The material in this article is taken from a book, "Food Service in Industry and Institutions," by Mr. Stokes and published in 1959 by Wm. C. Brown Company.

Trends in Food Service, cont.

service have been provided from the beginning. This has been true of the state universities beginning with North Carolina (1795) and Virginia (1825). Food service has also played an important part in the coeducational institutions starting with Oberlin (1833) and in the women's colleges, the first of which was Mount Holyoke Seminary (1837).

In addition to the land-grant colleges, made possible by an act of Congress in 1862, which includes many of the subsequently established

state universities, numbers of our larger educational institutions like Cornell, Johns Hopkins, and Stanford were endowed by private munificence. There are also many smaller liberal arts institutions originally founded, like the first colleges, under religious auspices. These, as well as the professional schools in the fields of theology, education, medicine, dentistry, business and engineering, have grown rapidly during the present century.

In each of these institutions, whether large or small, food service is

provided. In most cases this was originally in the form of table service but here again the cafeteria has come to be the popular method of mass feeding.

Clubs and Fraternities. In schools in which fraternities or clubs are permitted, meals are usually provided in the club or fraternity house in the form of table service. Usually this includes upperclass members only.

School Lunch Movement. The feeding of needy school children was started in Germany in 1790, by American born Count Rumford. France followed in 1849 with the institution of *cantines scolaires*. In 1865 Victor Hugo initiated school feeding in England and the practice spread throughout Europe.

Boston was the site of the beginning of the school lunch program in this country. In 1894 the Boston School Committee granted management of food service to the New England Kitchen, an organization started in 1890 to study food and nutrition for workingmen. In 1907 this was taken over by the Women's Educational and Industrial Union.

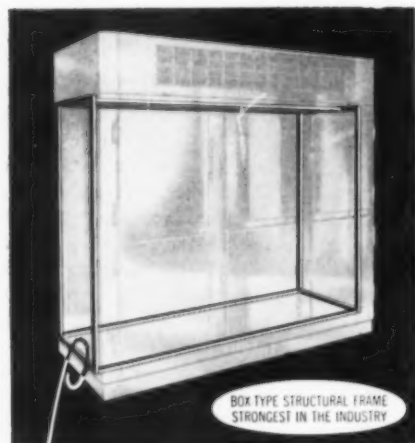
By 1913 many school lunch programs were developing throughout the country. In 1931 it was estimated that there were 64,500 school cafeterias in addition to hot lunch facilities provided in some 11,500 other schools. Today the cafeteria is an integral part of most elementary and high school plants.

Federal Subsidies. An act of Congress in 1935 made federal funds available to buy agricultural surplus foods for distribution to school children. This program was broadened by Congress in 1946 by grants-in-aid to states providing school lunches.

Current Trends

The Cafeteria. The cafeteria style of service originated at the Young Women's Christian Association in Kansas City, Mo. Seeking to find means of providing satisfactory food service at low cost for working girls, the association managers in 1891 visited the Ogontz Girls Club in Chicago, where self-service feeding had been inaugurated some two years earlier. Combining some of the Ogontz features with innovations of their own devising, they dubbed the new style of service a "cafeteria" — from the Spanish (a place where coffee is sold at retail).

(Continued on Page 84)



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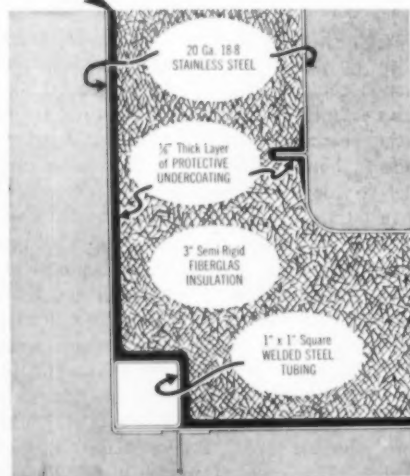
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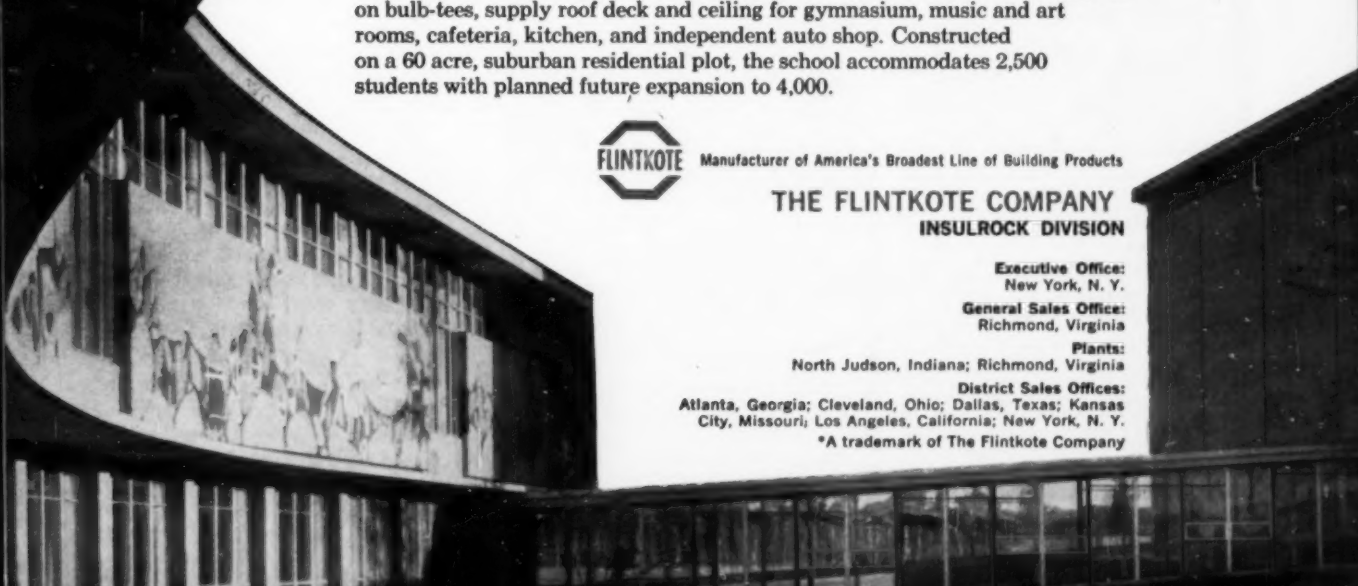
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Proviso West High School, Hillside, Illinois
Architects: Perkins & Will
General Contractor: Power Construction, Inc.



Trends in Food Service, cont.

The new type of service was soon adopted by Y.W.C.A.'s, Y.M.C.A.'s, and elementary schools throughout the country. It combined the advantages of speedy service for large numbers with a maximum of self-service, hence lower labor costs. It also gave patrons a certain freedom of choice, limited only by the variety of menu items offered.

After the turn of the century, the cafeteria style became popular in the feeding of employes in business and industry, hospitals and other institu-

tions. It was slower to supplant the conventional table service offered in private secondary schools and colleges because of two factors: (1) Meals in those institutions were considered part of the traditional educational process, where under the supervision of a faculty member a modicum of good table manners might be instilled and constructive discussion stimulated; (2) as the students themselves served as waiters or waitresses or assisted in food preparation or dishwashing, receiving free meals in return for their

services, the labor cost of table service was nominal.

It was not until later in the century as enrollments increased, making it necessary to feed large numbers, that the cafeteria began to be introduced.


Some colleges still retain the amenities of table service at one or more meals. To illustrate, at Wellesley College breakfast and luncheon are served cafeteria style, and table service is provided at dinner. In each case the same dining rooms are used for all three meals. Steam tables, some of which are portable, are used as cafeteria counters at morning and noon meal periods. For the evening meal these counters become service tables where the student waitresses pick up the meals and serve them family style to their fellow students. As part of the educational process, every student at Wellesley is required to perform some type of service, including waiting on tables.

Reducing Bottlenecks

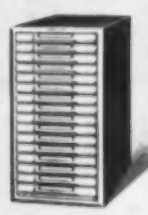


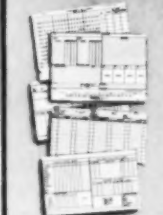
If patrons are compelled to pass through the cafeteria line in single file, all must wait while indecisive customers ahead of them make up their minds or others wait for hot foods to be served. The obvious solution to this problem is to have the aisle wide enough so that those who wish may be allowed to by-pass the line and obtain the food items they desire. When large numbers are to be fed, two separate counters and lines may be installed either parallel, wedge shaped or with traffic flowing from both ends of single line counters in duplicate, converging at the cashier's booth in the center.

The station for silverware and napkins often becomes a traffic bottleneck. If silver is placed at the beginning of the line, the tendency is for the patron to select more utensils than he really requires, thus needlessly increasing the dishwashing load. If the station is placed at the end of the line, just before the cashier's stand, traffic may be held up while the proper utensils are being selected. The solution is to place the silverware at a separate stand, beyond the cashier's station.

While visiting one of the large cafeterias at the University of Pennsylvania some years ago, I was told that the placing of a silverware stand beyond the cashier's station had increased the capacity of that cafeteria line by 23 per cent. (Con. on p. 86)



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Transistors add many extra advantages to RCA's new "Preceptor" System—providing instant action, longer life, simpler wiring, and lower operating costs. These are but a few of the superior features RCA sound engineers have designed into the "Preceptor" to make it the world's most advanced and most wanted language laboratory system.

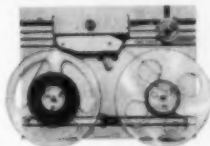
Write for complete information package explaining how RCA "Preceptor" System can vitalize your language curriculum. Also, ask for the name of your nearest RCA Language Laboratory Dealer. Address: Radio Corporation of America, Language Laboratory Sales, Building 15-1, Camden 2, N.J.

The RCA "Preceptor" console (above) with its master control panel puts the teacher in complete command. It allows: 1) monitoring of any student; 2) listening in on master tape and student's voice; 3) two-way conversation with any student; 4) recording of student on central tape recorder; 5) insertion of comments on the recording; 6) communication with whole class through "all-call" control. The teacher controls tape selection and can play up to 10 different tapes.



Sturdy RCA "Preceptor" booths can be installed singly, with or without flip-top desk to serve as writing surface, or in modules of two or three attractive economy booths.

World's Most Advanced
Components . . . from RCA!



Expansion? Just add a pre-wired SelectorCom panel with a bank of 10 selector switches.

RCA tape decks for the "Preceptor" System may be either half-track, or dual-track. Single-knob control makes them ideally simple to operate at the console or in student booths, as a program source or for student recording. Convenient new cartridge type tape decks are also available.



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LESSON IV.

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sāv'ings	gŷm-nā' sī-ŭm	ac' tī-vāted



THE BUDGET STORY

1. "Merely," exclaimed Mr. Fotheringham, chairman of the budget committee. "Are you going to recirculate all the inside air in that girls' gymnasium? Why, it will smell like a girls' gymnasium."
2. Clement, a forthright young engineer, spoke up. "The recirculated air will be purified with activated charcoal, well known for its ability to remove odors and impurities. The savings in heating and cooling will be considerable."
3. "Has this ever been done?"
4. "It is being done every day," replied Clement.
5. "Gym dandy!" exclaimed Mr. Fotheringham.

We invite you to send for an impressive list of air conditioning installations made most economical with the use of activated charcoal. Ask for Bulletin T334. Just write Clement, c/o Barnebey-Cheney, Columbus 19, Ohio.

Barnebey Cheney

*We gratefully acknowledge American Book Company's permission to use the illustration, and tip our hats to McGuffey whose First Reader is more than 100 years old.

Trends in Food Service, cont.

Modern practice goes even further. Stands for silver, condiments, water and glasses, placed at service stations beyond the cashier's booth, tend to speed up service. Napkins, sugar, salt and pepper dispensers generally are placed on the tables in the dining area.

These stations also may be useful in speeding up service in dining rooms where employes wait on tables. In studying a large university faculty club, where the farthest tables were at considerable distance from the kitchen, we recommended the installation of a complete service station at one end of the dining room. Provision was to be made not only for silver and condiments but also for dishes, linen, rolls, butter and warmers for coffee and hot water. By stocking this station in advance of the meal period it was found possible to provide more efficient service, and eight instead of 10 waitresses were used during peak periods.

Cashier stands often become bottlenecks if placed too close to the end of the food serving parts of the line. Sufficient space should be allowed so that the cashier may scan the tray as it approaches and mentally add up the check by the time it reaches her. Prompt movement in the line obviously requires a sufficient number of cashiers. Employee cafeterias find that as many as 15 patrons per minute may be served by a single cashier.

The cashier, however, must be competent. Unfortunately, some people, otherwise capable, simply do not have the ability to perform mental addition quickly and accurately. This, of course, is a matter of employee selection involving simple aptitude tests.

Hollow-Square Counter. Delays or bottlenecks also are caused by the fact that some foods, such as cooked items, must be served to the patron and require more time than self-service items. Patrons who wish only a prepared sandwich, a beverage, or a dessert often are compelled to wait in line while those ahead are being served hot food items.

By-passing is not always an effective answer when the line is crowded. For this reason the hollow-square or "shopping center" type of cafeteria has been devised. Rather than waiting in a single line or queue, the patron enters a square or rectangular area around three or four sides of which are counters offering the various menu

(Continued on Page 90)

for educational laboratory furniture ...

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Reliable studies show that genuine Oak laboratory furniture, properly finished, requires practically no maintenance. In case of damage, the wood can be easily refinished on-the-spot.

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No one can deny the unsurpassed warmth and beauty of wood finished by expert craftsmen. Oak especially offers a wide selection of grain effects and harmonizing colors to match any decorative scheme.

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Faculty and students both feel "at home" with wood. Its natural aesthetic value is unmatched by any other material. Wood is both inviting and pleasant to look at and to touch.

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Drawers and doors of wood furniture operate quietly. There's no distracting clatter.



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"When the old science building at this college was built about 1910, it was fitted up entirely with 'Kewaunee' furniture. After forty years, much of this furniture is still in good condition; and some of the original tables are still being used in some of the Physics, Geology and Biology laboratories."

"About 1926, we purchased four Kewaunee student center tables. After 20 years service, they were

moved in 1946 to some Army Surplus barracks which we then used for laboratories. We recently moved these desks a second time into our new building and have somewhat regretfully covered up the Oak grain with an alkyd enamel. As our enrollment grows, we expect them to serve another generation or so of students. They are still very respectable looking and completely serviceable."

"Wooden tables which I know have been in use, in our chemical laboratories, for as long as 50 years have been refinished several times and they appear to be good for another 50 years."

**Names on request*

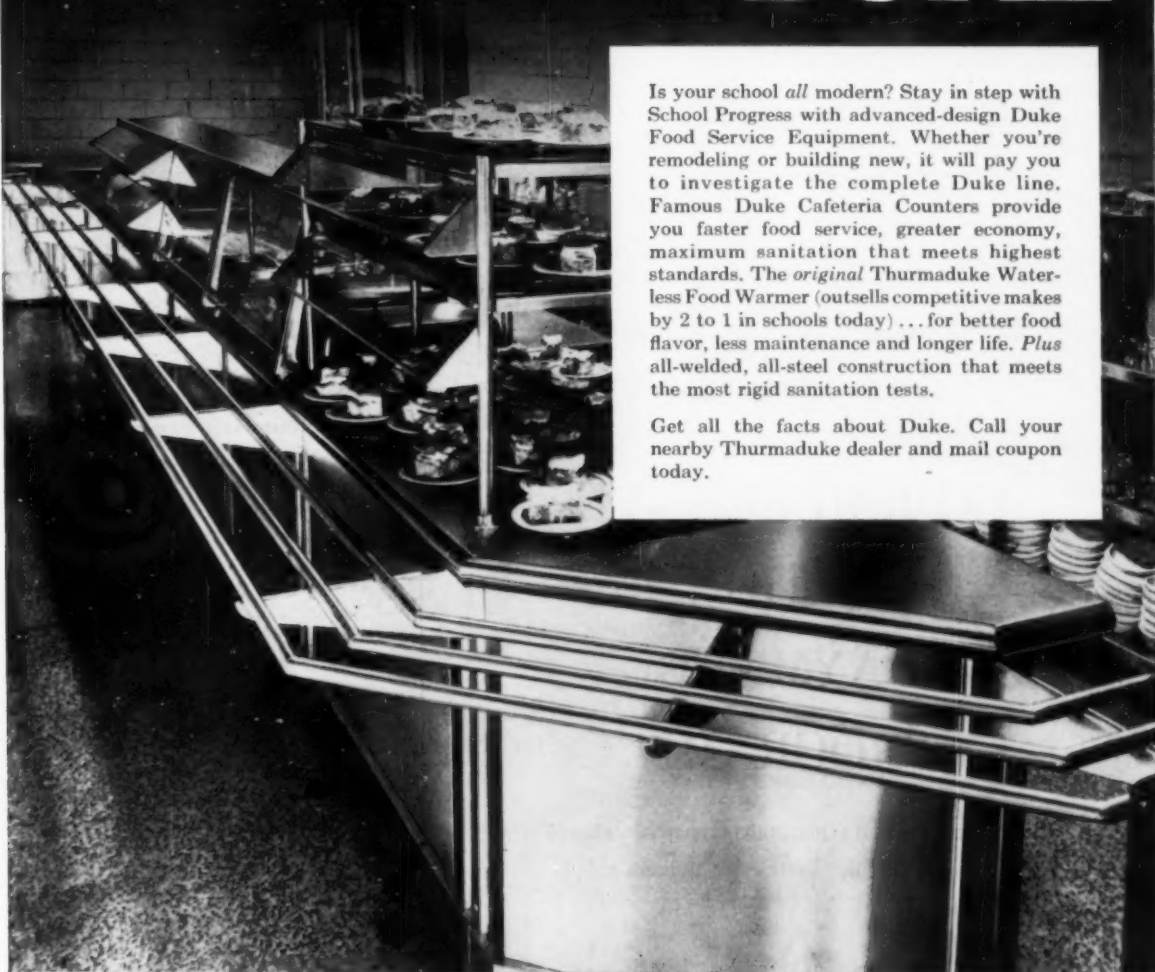
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Trends in Food Service, cont.

items. Wickets may be set up to bar passage in line. However, the patron is free to approach one or more counters in turn and select the items he desires. He then may choose a beverage from a self-service stand in the center of the "square" and proceed to the cashier's stand or stands outside the square. As the traffic resembles that in a supermarket, the appellation "shopping center" is often used.

Prepackaged Items. The genius of the cafeteria line is in the extent of self-service afforded. With the excep-

tion of hot food entrees that must be served by the counter attendants, the service of made-to-order items, such as sandwiches or egg dishes, is not feasible during rush periods. The modern trend is toward prepackaged foods: sandwiches prepared and wrapped in advance; containers of milk and ice cream; prepackaged desserts and wedges of pie; individual containers of sugar, jelly, juices, ketchup, mustard, dressings and the like. These make for quick service and also afford protection from a sanitary standpoint.

In many cafeterias coffee, tea, milk and hot chocolate are self-served. The use of modern urns and refrigerated bulk milk dispensers is on the increase. The latter, by allowing the purchase of milk in bulk containers, also afford savings over the individual half-pints in paper or glass.

Snack Bars. Where students require snacks, such as sandwiches and soda fountain items, these can be handled at the snack bar. Sometimes this is installed in the same room as the regular cafeteria line. Those who require only supplemental items make use of the snack bar, thus freeing the cafeteria line for patrons wishing hot foods. In some cases sandwiches are made to order and short-order items are offered at the snack bar. Often the snack bar is part of the Student Union.

Student Unions. These organizations provide recreational as well as food service facilities. In some institutions they may offer catering services for special parties and banquets.

New Materials and Equipment

New alloys, such as stainless steel, for counter and table tops, utensils, trays, wall coverings, and equipment afford ease in cleansing and enhance appearance. Although greater in first cost, stainless steel pays for itself in its long life and practical indestructibility. Such metals as aluminum and magnesium make possible reduced weight in portable appliances, yet provide adequate strength.

Plastics in the form of tableware and trays are widely used in the food services of educational institutions. Many counter and table tops are constructed of plastic materials, which have the advantage of strength and ease of cleansing; they can be obtained in various colors and designs to harmonize with the decor of the room.

Compartmented trays made of stainless steel or plastic are in use in many elementary school cafeterias as well as in college food services. A specially designed oval plastic tray takes the place of dishes in the dining halls at Harvard, for example. Ivory in color, this tray aids in speeding service and in reducing dishwashing problems and costs. Both men and women patrons, whom interviewed in one of the Harvard Graduate School cafeterias, expressed satisfaction with these trays. This attitude was echoed by the cafeteria personnel and the dining halls management.

(To Be Concluded Next Month)

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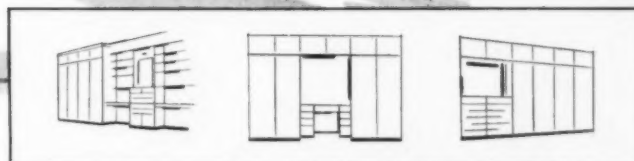
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These handsome units by Mengel cost far less than comparable furniture. They reduce building costs, too, by eliminating wood studding, plastering, trimming and swinging door hardware. In fact, Mengel closet wall units can be used in multiple to replace an entire non-load-bearing wall.

Mengel closet walls and accessories are shipped knocked down in individual cartons for quick, easy, and inexpensive assembly. They come in widths of 2', 3', 4', 5', and 6' and are 91½ inches high for simple tilt-up installation. Frames are of hardwood with choice of Gum, Birch, or Oak plywood exteriors. All units are fine sanded ready for finishing. Inquire about factory pre-finishing.

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NEWS

Rutgers Tries Out Politicians-in-Residence . . . Ohio State Rewards Outstanding Teachers . . . Clark Faculty Gets Large Pay Increases . . . Minnesota Surveys Drop-Outs . . . Five Universities Get Grants To Train Junior College Heads

Ohio State Rewards Outstanding Teachers

COLUMBUS, OHIO. — Ohio State University gave recognition to outstanding teaching talent on March 3 with the award of \$1000 cash grants to five faculty members chosen from the university's teaching staff of more than 1200.

Selected for the honor by a faculty committee from nominations submitted by students, faculty and alumni were: Dr. Robert C. Fisher, 33, associate professor in the department of mathematics; Dr. H. Gordon Hullfish, 66, professor of education; Dr. Robert D. Patton, 58, professor of economics; Dr. Oskar Seidlin, 49, professor of German; Richard H. Zimmerman, 37, professor of mechanical engineering.

The annual awards are provided through the Alumni Association and the Ohio State University Development Fund to "recognize and give evidence of the importance placed on superior teaching in the university and to provide encouragement and incentive for teaching achievement." Any member of the university staff on regular contract and engaged in teaching is eligible for consideration.

Michigan Students Protest to Southern Governors

ANN ARBOR, MICH. — The Student Government Council at the University of Michigan has voted to support antidiscrimination strikes and is sending letters voicing its stand to eight southern governors.

Letters are going to the governors of Alabama, Georgia, Louisiana, North Carolina, South Carolina, Tennessee, Texas and Virginia concerning the chain stores that have been picketed for lunch-counter discrimi-

nation against Negroes. Copies will go also to general offices of the companies.

The correspondence states in part: "We urge you to alter your policies so as to end discrimination in any store of the chain, and will urge our students to boycott your stores until there is an announcement of such a change."

Discrimination based on race, religion, national origin or any arbitrary standard has no place in American society, the letter declares.

"Picketing and sit-in strikes by individuals or groups represent legitimate forms of protest against discrimination in places of business."

Ohio State Considers Opening Lima Branch

COLUMBUS, OHIO. — Ohio State University will make a study to determine the possibility of operating a two-year branch in Lima. The exploratory study was authorized February 12 by the university's trustees.

Ohio State opened branch campuses at Marion and Newark in 1957 and at Mansfield in 1958.

President Novice C. Fawcett said the Lima study would include examination of: (1) student potential of the area, as indicated in data gathered by Lima agencies; (2) availability of adequate classroom space and the conditions under which it can be used; (3) availability of scholarship assistance for young men and women of real ability in the community; (4) supply of competent staff to teach the basic two-year curriculum as now presented at Ohio State's branch campuses; (5) adequacy of library and laboratory facilities, and (6) other facts that may be necessary in the negotiations for establishment of the branch campus.

Rutgers Tries Out "Politicians-in-Residence"

NEW BRUNSWICK, N.J. — A Republican spokesman, Gov. Cecil H. Underwood of West Virginia, received "equal time" when he served as a politician-in-residence at the Eagleton Institute of Rutgers in March. Gov. Stephen L. R. McNichols of Colorado, a representative of the Democratic party, served as a politician-in-residence in December.

Mr. Underwood, one of the nation's youngest governors, taught at the state university's unit for the study of practical politics and government March 21 to 23.

While in residence, he taught graduate and undergraduate classes, met informally with students and faculty, and addressed the members of the New Jersey Citizenship Clearing House from 17 state colleges and universities. His schedule was planned to give students a chance to question him about how politics looks "from the inside."

Mr. Underwood, 37, was first elected to the West Virginia house of delegates at the age of 22. Subsequently, he was reelected for five consecutive two-year terms, beginning in 1946. He became governor in 1956.

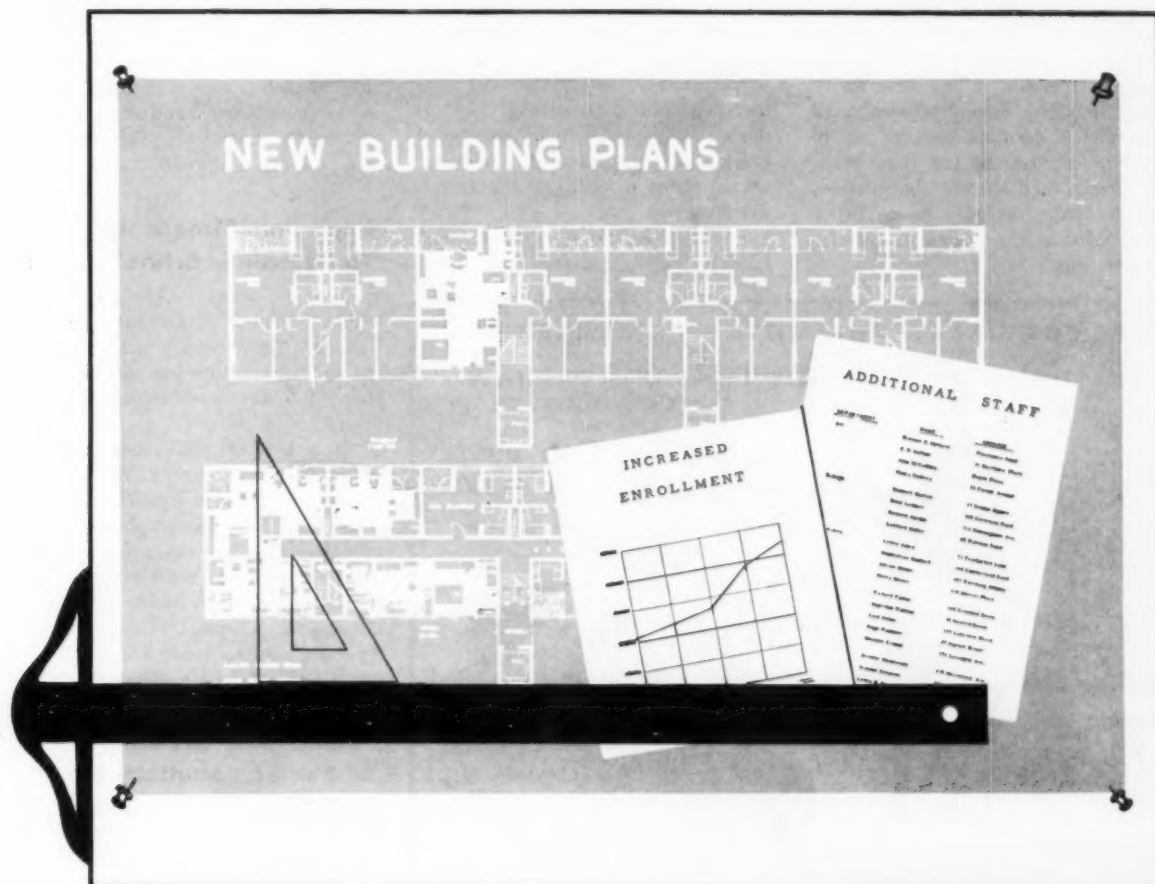
In addition to his political career, he had been a high school and a college teacher and was vice president of Salem College from 1950 to 1956.

Clark Faculty Voted Substantial Pay Increase

WORCESTER, MASS. — The largest single increase in faculty salaries in the history of Clark University has been voted by its board of trustees.

The average annual salary of full professors at Clark will be raised approximately \$2100, while associate

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ments in benefit plans and to work with you in keeping your institution's program up to date.

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professors will receive average increases of \$1200. Substantial increases will also be made in the assistant professor and instructor ranks. The increases will be effective September 1.

President Howard B. Jefferson said that, as a result of the new salary schedule, Clark faculty salaries in all ranks have risen an average of 36 per cent during the last four years. He noted that, during that period, full professors' salaries rose 51 per cent and associate professors' salaries 43 per cent.

John Jeppson, chairman of the board, said that "a remarkable surge in annual financial support from Clark's alumni, parents and friends, plus increased giving by business and industry, has been a major factor in making these increases possible." Mr. Jeppson noted that Clark alumni more than doubled their annual support during 1959 and that parents of Clark students established their own annual giving program for the university last year.

The trustees also voted to maintain Clark's tuition, room and board

charges at their present level next year. Tuition, now \$1050, has been raised from \$700 in two increases since 1956.

"Future increases in tuition are a certainty," said Dr. Jefferson, "but, in consideration of the financial burden that sharply rising fees have placed upon our students and their parents during the last three years, we shall hold the line next year."

Seek Part-Time Help To Remain in School

DAYTON, OHIO. — The number of students placed in part-time employment by the University of Dayton rose to an all-time high last semester, according to figures released by the university.

Of a total of 556 placements, 467 were what Prof. Harry C. Murphy, director of part-time student employment, calls "permanent placements."

"More than four out of five students seeking part-time work indicate they need the income to remain in school," Professor Murphy explains. "The permanent placements are those that enable the student to do this."

Alumni Are Greatest Source of Voluntary Gifts

WASHINGTON, D.C. — Alumni gifts to their alma maters climbed to almost \$200 million in 1958-59, the American Alumni Council reported March 14. The total of \$199,882,799, up 40 per cent from last year, is based on reports from 1143 colleges, universities and independent secondary schools in the council's 22d annual survey of alumni support.

Gifts from alumni continue to be the greatest single source of voluntary support for education. Total gifts from all sources reached \$863,157,250, of which alumni gave 23.2 per cent.

About one alumnus in five responds to alma mater's need for funds, the survey shows. The average gift in 1958-59 was \$114.94 from 1,739,404 donors. This average is swollen, however, by inclusion of very large gifts for buildings, endowments and other special purposes. Alumni giving through regular annual funds averaged \$32.86 per donor, a slight increase over the previous year.

Harvard led all institutions in two main categories, with Yale second

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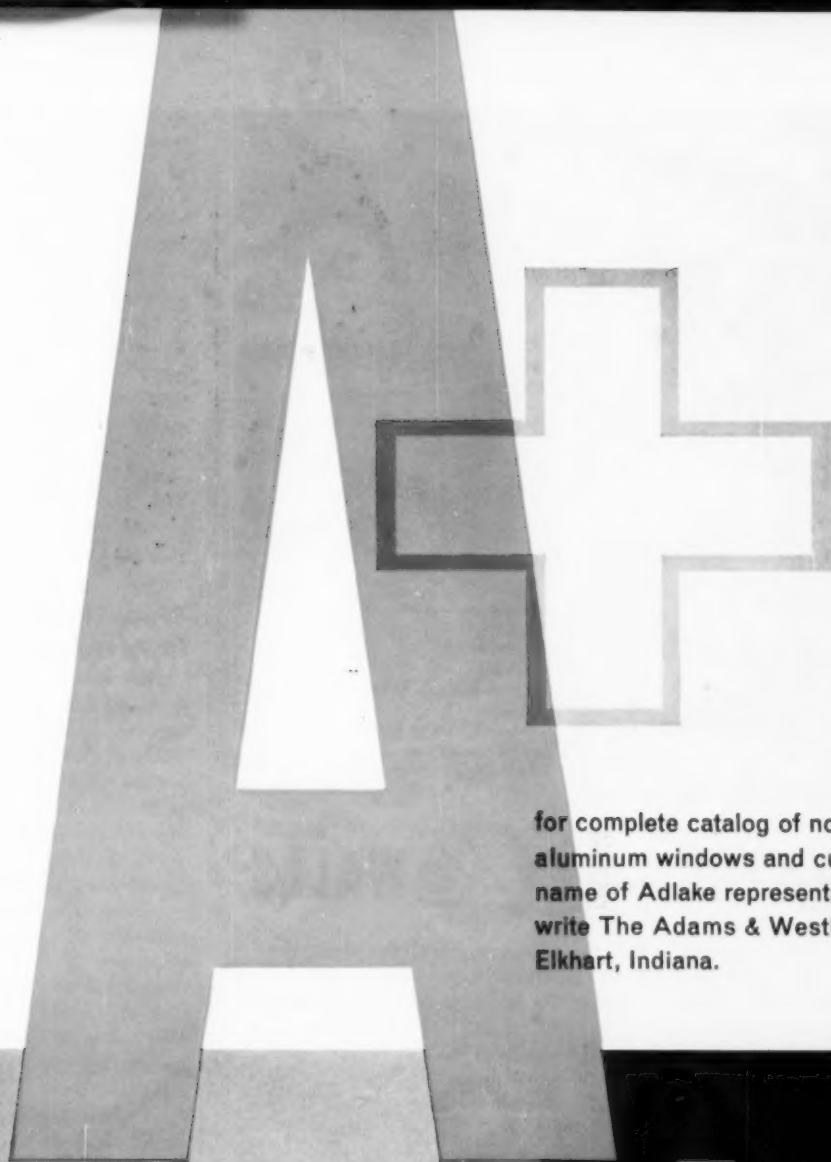
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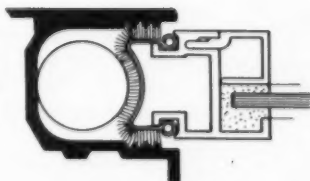
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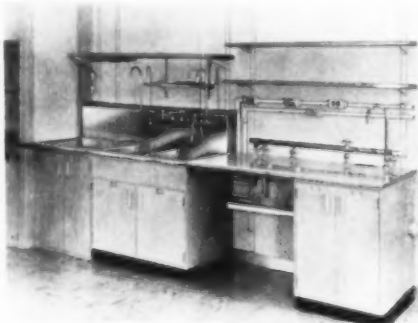
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This spacious facility is built to keep pace with advancing procedures and equipment in the field of medicine. In keeping with the desire for flexibility, the Administration, Superintendent of Buildings and Grounds, and Architects selected Power-Strut Movable Walls.

Over 80,000 feet of this completely flexible movable wall system has been efficiently and economically installed throughout the entire building... another outstanding example of the superior flexibility of Power-Strut Movable Walls to building for research.

If you would like to learn how Power-Strut can help you solve the problems of low cost space division in your next laboratory, plant or school project, write *today* for Brochure No. 580.

Power-Strut Movable Walls allow convenient attachment and support of water, gas and steam pipes, compressed air lines, electric outlets, air duct louvers, electrical control panels, shelving, benches, cabinets, sinks and any other type of laboratory equipment. Versatile Power-Strut channels and component clamping units provide economical overhead support for piping and attachments, too.



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in both cases. Harvard's \$22,852,265 was the top total, and its alumni fund of \$2,294,259 was the highest. Princeton and Mount Holyoke divided the honors for participation leadership, as they had in the previous year, each with gifts from 73.1 per cent of their alumni.

Included in the council survey are three broad categories of educational institutions. U. S. colleges and universities, 986 of which reported, received \$185,927,137 in alumni gifts. Giving by alumni to 137 independent secondary schools totaled \$12,389,748. The remaining \$1,565,914 from alumni was given to 18 Canadian colleges and universities.

Predicts Highest Starting Pay for Engineer

HOBOKEN, N.J. — The average starting salary offered 1960 engineering graduates at Stevens Institute of Technology will probably reach \$525 per month, an all-time high, according to Harold R. Fee, director of placement at the college.

Mr. Fee based his prediction on recent meetings with industrial representatives who arrived on campus to interview 216 seniors as prospective employees. The six-week interviewing period will bring to Stevens a total of 230 companies located from New Hampshire to California. This is the largest number ever to visit the college.

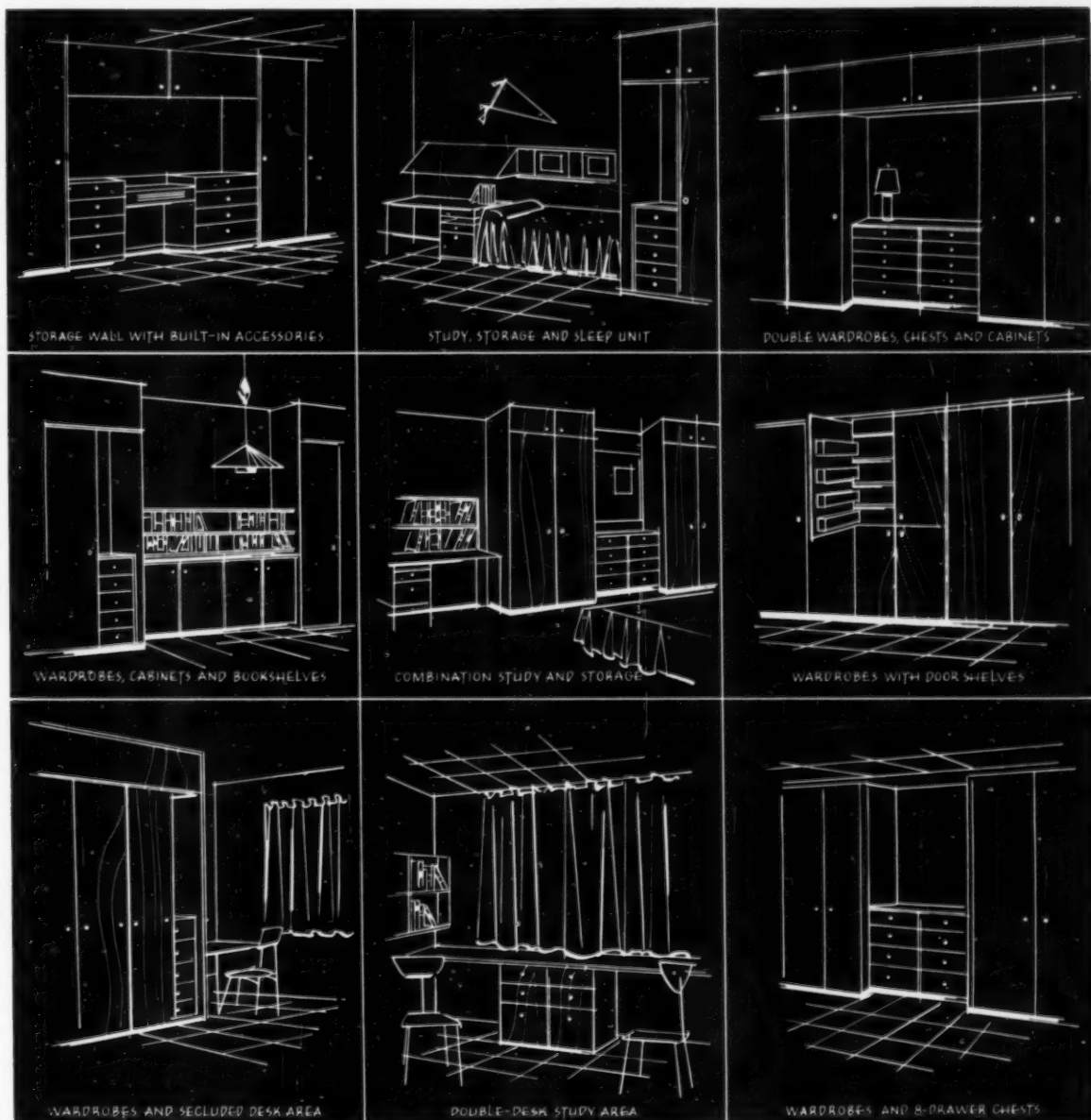
"It's an engineer's market again this year," Mr. Fee said. "And nowadays industry seems determined to keep its new engineers. Beginners receive yearly raises in line with their higher starting salaries. In 20 years our present crop of seniors will be making far more than 1940 graduates do now."

Parents Aspire To Have Children Better Educated

EAST LANSING, MICH. — One out of 10 parents of high school students were graduated from college but five out of 10 aspire to have their children gain college degrees.

A poll of 5000 families with 10th and 12th grade students was made by John X. Jamrich, associate professor of education, Michigan State University. His purpose was to determine the need and feasibility of a four-year college in the Grand Rapids area.

Dr. Jamrich believes that the findings on parental aspirations for chil-



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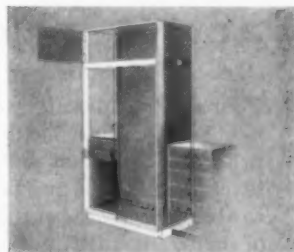
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SEMI-MICRO DESKS

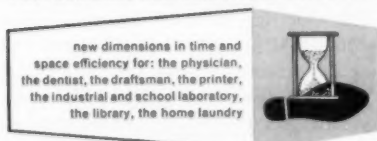
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Hamilton Manufacturing Company, Two Rivers, Wis.

dren is new evidence of the increasing demand for college education.

"College and university enrollments seem sure to go up greatly in the next several years," he said. "Part of it will be due to rapid growth of the college-age population. But equally important is the steady increase in the proportion of youth who want higher education."

Dr. Jamrich's study of the 1959 high school graduates in the Grand Rapids area shows that proximity to an institution of higher learning influences attendance. The counties without a college had a lower percentage of graduates continuing their education.

Survey Asks Why Eligible Students Were Drop-Outs

MINNEAPOLIS. — Why large numbers of scholastically eligible students did not return to the University of Minnesota for the 1959 fall quarter is a question school officials will try to answer in a survey now under way.

The university's bureau of institutional research has sent out questionnaires to more than 2000 students who were enrolled in the 1959 spring quarter on the St. Paul, Minneapolis and Duluth campuses and were scholastically eligible to return last fall but did not.

The survey will attempt to determine what these former students are doing now, why they left the university, and, if they are attending another school, why they transferred. Were low grades, tuition fees, a change in economic or marital status, or the failure of the university to meet their social or academic needs among reasons for leaving?

Results of the survey will be reported to the administrative committee early in May.

An unusually high ratio of drop-outs in some of the university's colleges was one of the reasons fall enrollment totals did not reach expectations, according to Earl N. Ringo, university research fellow and assistant director of the research bureau. The university had anticipated 27,000 students in the fall of 1959. Instead, attendance dropped for the first time in eight years — by 30 from the 1958 fall figure to a total of 26,538.

Many who did not return from last spring were married students. A student housing bureau study based on residence records for the 1959-60 aca-

ademic year showed 822 fewer married students registered last fall than the previous year on the St. Paul and Minneapolis campuses.

Earlham May Establish School of Religion

RICHMOND, IND. — Earlham College will soon take the first steps toward eventual establishment of a school of religion, as the result of a decision taken by the board of trustees at a recent quarterly meeting.

After a two-year trial period of expanded course work in the college department of religion, the proposed Earlham School of Religion would formally open in the fall of 1962, the first Quaker seminary in the history of Friends.

"The Earlham board has arrived at this decision," said R. D. Young, Portland industrialist and chairman of the board of trustees, "after long and prayerful weighing of the issues involved and after extensive consultation with a large number of Quakers in the Midwest and throughout the country. If the first two years of experience with expanded work leading to the degree of master of arts in religion seem to confirm our decision, we shall proceed to the establishment of a full three-year graduate program for the bachelor of divinity degree. If we do not receive that confirmation, we shall not take the final step."

The board approved a plan to build a new library on the Quaker campus.

Education Will Lure Industry, Professor Says

ANN ARBOR, MICH. — Educational opportunities may outweigh tax inducements in attracting enlightened corporations to a community, says M. M. Chambers, visiting professor of higher education at the University of Michigan.

"Corporations are attracted by the advantages of good public school systems and research facilities afforded by the presence of the great universities," Dr. Chambers declares. "The worn idea of the states competing with one another to attract new industries by avoiding taxation, especially personal and corporate income taxes, is well on the wane."

Seven large and populous states, whose legislatures have been more or less deadlocked on tax measures, have an opportunity to bring their revenue

systems up to date, Dr. Chambers says.

He cites Texas and Nevada, with neither an income tax (individual or corporate) nor a general sales tax; Illinois, Michigan and Ohio with no income taxes, and Minnesota and Wisconsin with no general sales tax.

Dr. Chambers says the states have not exhausted their sources of revenue. "General sales taxes are hugely and promptly productive. They tend, it is true, to bear heavily upon lower income classes, but this feature can be somewhat counterbalanced by ex-

empting some staple necessities and largely by having a progressively graduated income tax as part of the same revenue system. Only about a dozen states have no general sales tax as yet."

Dr. Chambers says that income taxes are undergoing improvement: "The idea of placing state income tax collections on a withholding basis, as in the federal income tax, is gaining ground rapidly. A dozen states as yet have no income tax law. Three states have neither an income tax nor a general sales tax. These two taxes to-

gether form the core of a productive and equitable state revenue system."

Special sales taxes, such as those on motor fuels, alcoholic beverages, cigarets and other tobacco products, and gambling tickets, are substantial sources of income, Dr. Chambers adds.

11,980 Alumni Give to Notre Dame in 1959

NOTRE DAME, IND. — The University of Notre Dame received \$3,375,792 in gifts and grants during 1959, according to the Rev. John H. Wilson, C.S.C., acting director of the Notre Dame Foundation, the school's development organization.

Father Wilson reported that \$6,395,844 has been contributed to Notre Dame during the first two years of its 10 year, \$66,600,000 development program. By 1967 the university hopes to acquire \$18,600,000 for new buildings, including a library, construction on which will begin next year. The 10 year goal also provides \$27 million for faculty development, \$11 million for research, and \$5 million each for student aid and special administrative purposes.

The 1959 total of gifts and grants represents an increase of \$355,740 over the previous year, largely in the research and grants category, Father Wilson said. According to the foundation's year-end report, \$700,420 emanated from Notre Dame alumni, \$18,285 from honorary alumni, \$1,215,338 from nonalumni sources including 501 corporations and foundations, and \$1,441,748 in the form of research grants and fellowships.

The Notre Dame Foundation recorded 11,980 alumni contributions during 1959, an increase of 303 over the previous year. Forty-five per cent of the university's alumni contributed an average gift of \$58.46.

Ohio State To Raise Fees \$10 a Quarter

COLUMBUS, OHIO. — Ohio State University is raising student fees \$10 a quarter, beginning next summer.

University officials estimate that the fee increase will provide some \$600,000 annually, all of which will go to meet "personal service" items in the university's budget, which include faculty and supporting personnel, such as technical, civil service and student employees.


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Foreign Contingent Large in Case Graduate School

CLEVELAND. — More than 9 per cent of Case Institute of Technology's graduate students come from 27 foreign countries, a survey issued by Dr. Eric A. Arnold, associate dean of the graduate school, revealed recently.

Of the 667 graduate students, 274 of them resident or full time, enrolled for the spring semester, 73 are residents of foreign countries.

Twenty-three of the foreign students are seeking their Ph.D.'s. Al-

most half of the foreign enrollment is composed of Indian and Chinese students.

Western Reserve's Spring Enrollment Up 7 per Cent

CLEVELAND. — Enrollment for the spring session at Western Reserve University has increased 7.2 per cent over the same period last year, President John S. Millis has announced.

A total of 7125 students are enrolled for this session in comparison with 6647 during the 1958-59 spring

session, according to figures from Registrar John C. Brayton. The greatest increase is in the graduate division of the Frances Payne Bolton School of Nursing with 409 students for this year, a 45 per cent jump.

Large Gift Goes for Nutritional Research

CAMBRIDGE, MASS. — A gift of \$100,000 a year for 10 years from General Foods Corporation will provide for expansion of the nutritional research laboratories of the Harvard School of Public Health.

President Nathan M. Pusey of Harvard, announcing the General Foods' gift for construction of the laboratory unit, said it is the largest gift ever made by any business corporation for the capital purposes of Harvard University.

The new four-story nutrition laboratory, where biological and medical sciences will be applied to human nourishment and its relation to heart disease, obesity and other public health problems, will be part of a projected 15 story research structure for the School of Public Health in Boston.

Grants To Train Junior College Heads Announced

STANFORD, CALIF. — Five universities, including Stanford, have received grants from the W. K. Kellogg Foundation to establish centers to increase the number of qualified junior college administrators. The programs will be set up at the master's and doctoral level.

These centers will seek out likely candidates for a program of course work supplemented by an internship. Working directly with the junior colleges, the center will provide inservice training for current administrators and will conduct research and offer consultation in administrative functions. The presidents of the co-operating community colleges will form an advisory committee.

Grants for this purpose have been made to Stanford University, \$25,000; the University of California (Berkeley), \$125,000; UCLA, \$125,000; Columbia, \$220,000, and University of Texas, \$194,000. The University of California at Berkeley has been given an extra \$75,000 to coordinate the three California projects.



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Selected Students To Study in Chile

NEW YORK. — A program whereby college students will receive grants to study in Chile has been renewed for 1960 by Fordham University and the U.S. Department of State.

The project was initiated last year as part of Fordham's Inter-American Program, which is designed to foster understanding between the United States and Latin America. Ten undergraduates studied in Chile under the program in 1959 and an equal number are expected to take part in the program this year.

Under terms of the contract signed between Fordham and the State Department, outstanding students, including undergraduates from other colleges and universities, will receive grants of up to \$1000 for eight months' study at the Catholic University in Santiago.

The program will be directed by a Fordham professor who will accompany the group to Chile and by a liaison professor from the host university. In addition to course work, the students must prepare a scholarly research paper, which on their return to the United States will be presented to the director of the program, the Rev. Edward J. Sweeney, S.J.

Students selected to study in Chile must be in the top third of their college class, display a mastery of Spanish, and show a keen interest in Latin American problems. Since they are expected to promote better relations between the United States and Latin America, they must also, according to Father Sweeney, possess a balanced character and be willing to participate in cultural and social activities offered at the Chilean university.

Students chosen to take part in the Chilean program will travel to Washington, D.C., during the Easter vacation for five days of briefing by the State Department.

Animated Color Movie Helps in Fund Raising

NEW YORK. — Nearly 700 college and university presidents have placed orders for a new fund raising tool, a 17 minute 16mm animated color sound motion picture, "Education Is Everybody's Business."

The film has been prepared as a public service by the Council for Financial Aid to Education as part of

its program to help stimulate widespread citizen support of America's colleges and universities. It was underwritten by a grant from the Mutual Benefit Life Insurance Company of Newark, N.J., and produced by John Sutherland Productions, Inc., Los Angeles.

Conference on Campus Safety June 19 to 22

ITHACA, N.Y. — The seventh National Conference on Campus Safety sponsored by the National Safety

Council will be held at Cornell University June 19 through June 22.

Campus safety officials from throughout the United States will view demonstrations by a large number of exhibitors of new equipment and approaches to solving college safety problems.

"Organizing a Campus Safety Program" will be the lead-off topic; the speaker, Albert E. Diem, vice president for administration at Pennsylvania State University.

"Psychology of Students" will be discussed by John Summerskill, vice

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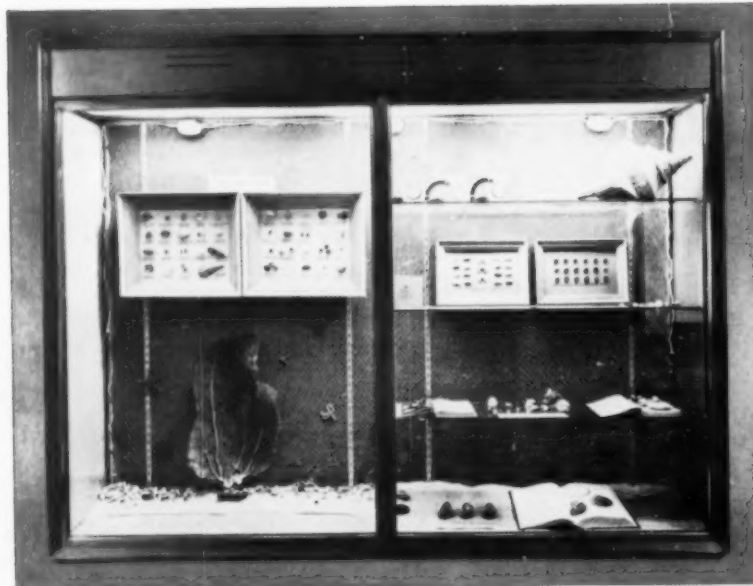


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president for student affairs at Cornell. The *Cornell Daily Sun's* editor, Robert Malina, will discuss "Procuring Help From the Student Newspaper."

"Problems With L.P. Gas" will be probed by a representative of the Liquefied Petroleum Industry.

"Teaching Safety in Student Shops" by Prof. Edward W. Foss of Cornell and "The Purchasing Agent and the Safety Man" by Wallace B. Rogers, Cornell manager of purchasing, are two other papers to be presented.

Cars on campus will be covered in a talk by Wilbur Smith of Wilbur Smith Associates, entitled "The Professional's View of Campus Parking Problems."

"School Fire Inspections" will be discussed by B. Richter Townsend, secretary-manager of the International Association of Fire Chiefs. A talk by Francis J. Haughey, lecturer in health physics at the Weight Laboratory of Rutgers University, has also been scheduled.

Enrollments Rise on Nevada's Two Campuses

RENO, NEV. — University of Nevada's enrollment on both the Reno and Las Vegas campuses is showing a continuous rise with some 2930 students currently attending daytime classes.

Preliminary tallies of the 1960 spring semester enrollment show a 6 per cent increase in students on the Reno campus over last year and a 12 per cent increase at Las Vegas.

NAMES IN THE NEWS

Paul B. Flynn has been appointed director of public relations at Stonehill College, North Easton, Mass., following the resignation of C. Edward Wagner, it is announced by the Very Rev. Richard H. Sullivan, C.S.C., college president.

Edwin S. Burdell, president of Cooper Union for the Advancement of Science and Art, New York, for the last 22 years, retired February 29 with the title of president emeritus. He has accepted the presidency of the Middle East Technical University of Ankara, Turkey, a post offered to him by UNESCO, with the approval of the Turkish government and the U.S. Department of State. Dr. Burdell assumed his new duties March 15.

Gordon N. Ray, vice president and provost of the University of Illinois, is resigning at the end of the present

academic year to join the executive staff of the John Simon Guggenheim Memorial Foundation of New York. He will become associate secretary general of the Guggenheim Memorial Foundation with the stated expectation that he will succeed **Henry Allen Moe**, present secretary general, upon the latter's eventual retirement.

L. Gard Wiggins, controller of Harvard University since 1954, has been named to succeed **Edward Reynolds** as administrative vice president of the university on July 1. Mr. Reynolds, who is retiring, has held the post since 1946. The administrative vice president is the chief business officer of the university, responsible for the construction and maintenance of buildings, the housing and food services for undergraduate and graduate students, the safety and security of university property, and the keeping of financial records and accounts. University investments are managed by the treasurer, **Paul C. Cabot**.



L. Gard Wiggins



George Stoddard

George D. Stoddard, for the last three years dean of New York University School of Education and more recently acting vice president of N.Y. U., has been appointed chancellor and executive vice president. He will be primarily responsible for educational policy and will rank next to the president in administration. Dr. Stoddard was formerly president of the University of Illinois and, prior to that, president of the University of the State of New York.

Albert C. Molter, retired army colonel, has been named purchasing agent for Lehigh University, Bethlehem, Pa., **Elmer W. Glick**, university treasurer, announces. Mr. Molter will succeed **John W. Maxwell**, who resigned to become business manager of the new Florida Presbyterian College at St. Petersburg.

Claude J. Black, purchasing agent of Indiana University, has been named "Purchasing Agent of the Year" by *Indiana Business and Industry*, a monthly magazine for Indiana and



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Midwest executives. The magazine credited Mr. Black, during his 21 years as head of the university's purchasing department, with saving "hundreds of thousands of dollars" and stated that "national and state contractors and suppliers of merchandise and savings know him as one of the most astute of buyers."

Oswald Tippo, Eaton professor of botany and chairman of the department of botany at Yale University and formerly dean of the graduate school of the University of Illinois, has been named provost of the University of Colorado. As provost, Mr. Tippo will serve as the senior dean and chief academic officer of the university with broad supervisory duties and with the responsibility for the general academic administration of the university. The appointment becomes effective July 1. The vacancy was created last summer by the promotion of **Dr. Eugene H. Wilson** as vice president.

Robert F. Kerley, formerly business manager of the University of California's Berkeley campus, on March 1 became business manager of New York University. Mr. Kerley will be responsible for the over-all business opera-

tions of N.Y.U. Among these are the personnel and purchasing divisions, auxiliary enterprises; and the design, construction, operation, maintenance and protection of the physical plant. Mr. Kerley will be the second person to hold the title of business manager at N.Y.U. **George F. Baughman**, now vice president for business affairs and treasurer, was business manager for one year.

Horace B. Brown, dean of the college of business administration and professor of marketing at the University of Oklahoma since 1949, has been named vice president for busi-



Horace B. Brown



Roscoe Cate

ness and finance to succeed **Roscoe Cate**, who died recently following a long illness. Mr. Cate had been a member of the university's administrative staff since 1936, and in 1947 was appointed financial vice president and in 1950 vice president and busi-

ness manager, the position he held at the time of his death. Mr. Cate was a past president of the Central Association of College and University Business Officers.

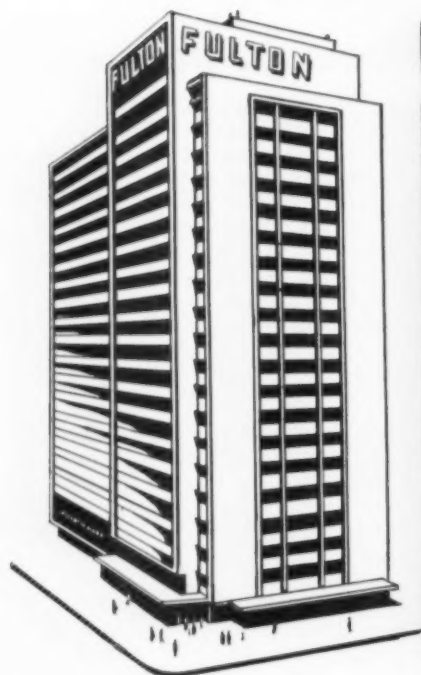
Don W. Lyon, director of television and radio for the University of Rochester, has been appointed to the newly created position of director of public relations for the university.

Rear Adm. Paul Foley Jr., coordinator of business affairs at Hofstra College, Hempstead, N.Y., recently announced a reorganization of the business office administrative staff. **H. William Kufe**, former controller, becomes business manager and director of the budget. **Anthony T. Procelli**, former bursar, is the new controller, and **Joseph F. Peisel**, former assistant to the bursar, becomes bursar.

Herbert R. Jautze, formerly purchasing agent at Pratt Institute, Brooklyn, N.Y., is now director of purchasing at Hofstra College, Hempstead, N.Y. He succeeded **Victor A. Cranston**, who resigned recently to go into business.

Allen P. Lovejoy, controller at the Pacific School of Religion, Berkeley, (Continued on Page 110)

AT ATLANTA'S FULTON BANK...



Model P5-20BP battery powered Clarke-A-matic cleaning floor in main lobby of Fulton National Bank, Atlanta, Ga.

DIRECTORY OF ASSOCIATIONS

National Federation of College and University Business Officers Associations

President: Charles H. Wheeler III, University of Richmond; secretary: Kenneth Dick, University of Idaho.

National Federation Consulting Service, 343 S. Dearborn St., Chicago. George E. Van Dyke, executive director.

Assembly: July 6-8, French Lick, Ind.

American Alumni Council

President: George J. Cooke, Princeton University; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.

Convention: July 10-14, Hotel Shoreham, Washington, D.C.

National Association of Educational Buyers

President: Carl A. Donaldson, University of Nebraska; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 2-4, Hilton Hotel, Pittsburgh.

National Association of Physical Plant Administrators of Universities and Colleges

President: R. F. Gingrich, Kansas State University; secretary-treasurer: John H. Sweitzer, Earlham College, Richmond, Ind.

Convention: May 8-11, Statler Hotel, Boston.

National Association of College Stores

President: Sam Hanna, DePauw Bookstore, Greencastle, Ind.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 19-23, Sherman Hotel, Chicago.

American College Public Relations Association

President: Marvin G. Osborn Jr., Washington University, St. Louis; executive director: Frank L. Ashmore, 1785 Massachusetts Ave., Washington, D.C.

Convention: July 10-14, Sheraton-Park Hotel, Washington, D.C.

College and University Personnel Association

President: Orie Myers, Emory University; executive secretary: Donald E. Dickson, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: Aug. 7-10, Carnegie Institute of Technology, Pittsburgh.

Canadian Association of University Business Officers

President: J. A. Wheeler, bursar, Mount Allison University; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

Convention: June 13-15, University of Manitoba

Association of College and University Housing Officers

President: Joseph P. Nye, Columbia University; secretary-treasurer: A. Thornton Edwards, Kansas State University.

Convention: July 31-Aug. 3, Indiana University, Bloomington.

Association of College Unions

President: Chester A. Berry, Stanford University; secretary-treasurer: Edgar A.

Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 24-27, Indiana University, Bloomington.

Associations of College and University Business Officers

American Association

President: Paul G. King, Tennessee A. & I., Nashville; secretary-treasurer, Sinclair V. Jeter, Clark College, Atlanta, Ga.

Convention: May 5-7, Southern University, Baton Rouge, La.

Central Association

President: Harlan Kirk, Lawrence College, Appleton, Wis.; secretary-treasurer, James J. Ritterskamp Jr., Washington University, St. Louis.

Eastern Association

President: Vincent Shea, University of Virginia; secretary-treasurer: Kurt M. Hertzfeld, Boston University.

Convention: Dec. 4-6, White Sulphur Springs, Va.

Southern Association

President: Clarence Scheps, Tulane University; secretary: C. O. Emmerich, Emory University.

Convention: April 3-5, Edgewater Gulf Hotel, Edgewater Park, Miss.

Western Association

President: Ernest Conrad, University of Washington; secretary: James Brainerd, Menlo College.

Convention: May 1-4, Salt Lake City.

ClarkeA-matic DOES A 16 HOUR JOB IN 45 MINUTES



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Today, the floor is cleaned in 45 minutes by one man with a Clarke-A-matic, reducing labor time 15 hours and 15 minutes each time the floor is cleaned, which, according to Fulton Bank's calculations, is a labor saving of 95 percent.

In addition, a better housekeeping job is accomplished and customers are provided with a safer, more sanitary floor. The floor is now cleaned *three times a week*. These three cleanings, requiring 45 minutes each, total only 2¼ hours—saving 13¾ hours each week.

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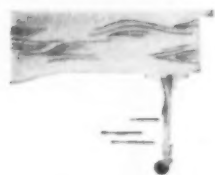


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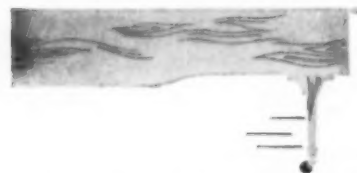
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Bassick casters add conveniences as well as sure protection for floors of all types.

THE BASSICK COMPANY,
Bridgeport 5, Conn.
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Calif., recently resigned to become treasurer of the new Tunghai University, Formosa. He had been treasurer for several Christian colleges in China for four years before being driven out by the Communists in 1951. **Gerald L. Painter**, a member of the staff of the auditing firm of Arthur Anderson and Company, became controller at the Pacific School of Religion on March 14. Mr. Lovejoy will remain on the staff until May 30, assisting Mr. Painter in his new duties.

Daniel D. Robinson, controller at New York University, has been promoted to controller and assistant treasurer. Mr. Robinson, a certified public accountant, joined the university staff in 1956 after serving for five years with the accounting firm of Haskins & Sells.



D. I. McFadden

Duncan I. McFadden, Stanford University controller for the last 15 years, has been appointed director of finance. Succeeding to the controller's post is **Kenneth D. Creighton**, assistant controller, who went to Stanford in 1958 from Food Machinery and Chemical Corporation, San Jose. Both officers are members of the staff of **Kenneth M. Cuthbertson**, vice president for finance. Mr. McFadden, a past president of the Western Association of College and University Business Officers, will be responsible for the accounting of endowment and other invested funds, establishment of bank accounts, and arrangements for borrowing.

John A. Pond, executive director of the Alumni Foundation of the University of Chicago, has resigned to accept appointment as business manager of William Jewell College at Liberty, Mo. His appointment became effective April 1. Mr. Pond has been assistant business manager of Springfield College, assistant purchasing agent of the University of Chicago, purchasing agent of N.Y.U.-Bellevue Medical Center, and purchasing agent of the University of Colorado. He is a former treasurer of the National Association of Educational Buyers.



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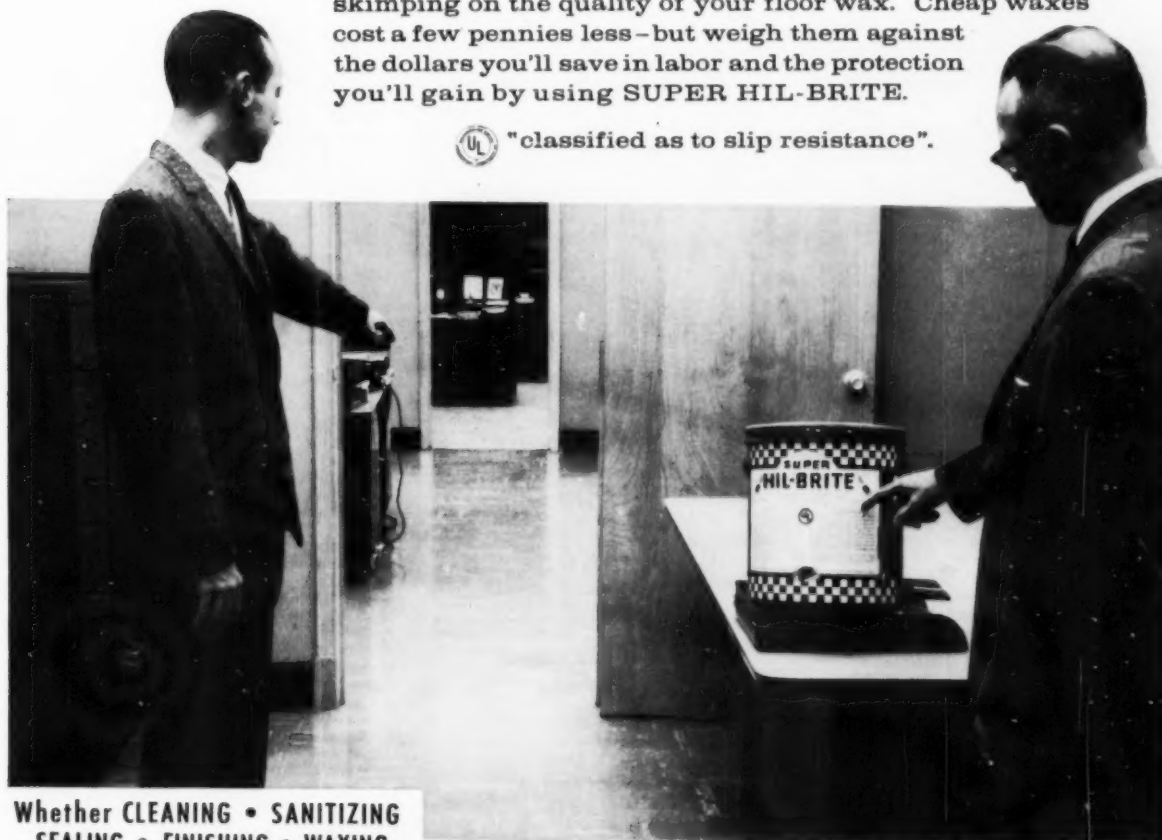
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POSITIONS WANTED

Assistant To Dean Of Administration—Business Manager — Six years as administrator in higher education; competence in personnel management, financial management and accounting; four years as director of auxiliary enterprises; family background excellent, married, no children; B.B.A. degree and M.B.A. degree June, 1960, desire opportunity for advancement as college administrator, resumé upon request. Write to Box CW 524, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager or Assistant — Fifteen years successful record all areas of college-university business management. Write to Box CW 512, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Eight years all phases college business management, four as assistant business manager; age 33, married, two children; B.S. Business Administration. Write to Box CW 526, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Twenty years with eastern university; all phases office administration, maintenance, purchasing, auxiliaries, housing, dining hall, machine accounting, non-academic personnel; prefers west coast or south. Write to Box CW 516, COLLEGE AND UNIVERSITY BUSINESS.

Buyer or Assistant Purchasing Agent — Formerly purchasing agent for midwestern branch plant of national AAA-1 firm and presently assistant secretary and sales manager for same; desire New England location; family, age 38, B.A. degree. Write Box CW 522, COLLEGE AND UNIVERSITY BUSINESS.

College Administration—Age 38; LL.B. and M.A.; eleven years university teaching and administration, seven years legal staff; specialized background university and college law; will consider foreign assignment; desire responsible and challenging position. Write to Box CW 527, COLLEGE AND UNIVERSITY BUSINESS.

College, Junior College Placement Bureau Director — Four and one-half years experience as assistant placement director, eastern women's college, 1,750 students; several years experience placing men and women; available July, 1960; location open. Write to Box CW 525, COLLEGE AND UNIVERSITY BUSINESS.

Development Office—Presently employed development officer; evaluate my qualifications your job from complete personnel resumé. Write to Box CW, 513, COLLEGE AND UNIVERSITY BUSINESS.

Director, University Press And Or Auxiliary Enterprises—Ten years experience all phases of educational management. Write to Box CW 523, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director And Wife Team—Thoroughly experienced in college feeding management; assume complete responsibility of entire program; will relocate; excellent business and financial references. Write Box CW 520, COLLEGE AND UNIVERSITY BUSINESS.

Physical Plant Administrator Or Staff—Extensive experience all phases physical plant operation, maintenance and construction with proven supervisory and management ability; MS degree in Engineering, registered professional engineer, now associated physical plant work, desire west or south location. Write to Box CW 521, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Desires to relocate in southwest or west coast area; engineering college graduate with twelve years experience supervising small college maintenance, heating plant, grounds, purchasing, plus twenty years experience in construction. Write to Box CW 519, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Accountant—Man to program and evaluate punch card systems; experience in all phases of university accounting preferred; excellent opportunity with large midwestern private university; send resumé and salary requirements to Box CO 348, COLLEGE AND UNIVERSITY BUSINESS.

Bookstore Manager — College in New York City; very good salary plus excellent opportunity for growth; college will double enrollment (to 5000) in three years; send resumé to Box CO 349, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Independent day and boarding school for 500 girls in large midwestern city seeks qualified man to supervise accounting procedures and plant maintenance; new position in well-known, established school; state experience, salary requirement and availability. Write to Box CO 344, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—Responsible for the business operations of urban commuter-type colleges which are part of an eastern state university; this position offers a good salary and an excellent opportunity to participate in the building program and growth of the institution; experience in college business operations

with emphasis on physical plant operations is very desirable. Send resumé to Box CO 354, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Enrollment 300; senior position; college experience required; salary open; responsibility for administration and policy recommendations in budget; accounting procedures and controls, purchasing and inventories. Write President's Office, CAZENOVIA JUNIOR COLLEGE, Cazenovia, New York.

College Budget Director—For rapidly growing mid-western state college having an enrollment of 3100; position involves budget preparation, supervision of divisional allotments spending, cost studies and related assignments; salary open; send resumé of educational preparation, professional experience and references to Box CO 351, COLLEGE AND UNIVERSITY BUSINESS.

Dietitians — University in Rocky Mountain region has openings for dietitians commencing September 1, 1960; position entails managing either a men or women's dormitory housing 400 students; fringe benefits include one month's paid vacation, sick leave, good retirement and hospital plan, above average salary and offers one the opportunity to express their ability and ideas. Write to Box CO 355, COLLEGE AND UNIVERSITY BUSINESS.

Director and Manager of Food Service—For a private liberal arts college in a metropolitan area in the middle west for the fall of 1960 or sooner; involves managing two dining halls and feeding about 600 students, planning meals, buying, and supervising help; send details about educational training and experience; also references. Write Box CO 326, COLLEGE AND UNIVERSITY BUSINESS.

Director Of Food Service — For private university in a middle Atlantic large city area; require the services of a trained, experienced man to take charge of preparation and serving approximately 5500 meals daily; modern equipment and facilities available; excellent opportunity. Write to Box CO 352, COLLEGE AND UNIVERSITY BUSINESS.

Executive Housekeeper — Independent day and boarding school in suburban Philadelphia area; must be experienced in training and supervising cleaning staff and in the use of modern surface maintenance and cleaning techniques; room or apartment, with meals, available. Write Box CO 353, COLLEGE AND UNIVERSITY BUSINESS.

Food Controller—New position, excellent opportunity, responsibilities to include: master menus, food testing, standardization of menus etc. for expanding food service department; college degree in Institutional Management and two years top supervisory experience required; excellent advancement opportunities, retirement, sick leave, social security, excellent vacation, 5 day week. Apply to Gilbert P. Volmi, Manager, University Food Service, UNIVERSITY OF MARYLAND, College Park, Maryland.

Food Service Director—Immediate opening in midwestern college; to assume responsibility of food service program for student union; experience required; salary open; please state experience, give reference and salary in first letter. Write to Box CO 356, COLLEGE AND UNIVERSITY BUSINESS.

(Continued on Following Page)

COLLEGE AND UNIVERSITY BUSINESS

919 N. Michigan Avenue, Chicago 11, Ill.

classified advertising

POSITIONS OPEN

(Continued From Preceding Page)

Food Service Directors — Excellent opportunities are available for young men and women with food service experience; a leading food service caterer needs managers immediately for: colleges and schools; salary open; relocate. Send resumé to Box CO 285, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Manager — Excellent opportunity, position available July, 1960, management of dining hall serving 9,000 meals per day, 8 cafeteria lines, catering, 120 on staff; college degree in Institutional or Restaurant Management and three years top supervisory experience required; excellent salary, retirement, sick leave, social security, excellent vacation, 5 day week. Apply to Gilbert P. Volmi, Manager, University Food Service, UNIVERSITY OF MARYLAND, College Park, Maryland.

Food Service Personnel — Immediate openings for managers, manager trainees, chef managers, chefs, young qualified male graduates who enjoy campus environment; best salaries, benefits; promotional opportunities in leading college food service organization; send personal data to SAGA FOOD SERVICE, 174 West College Street, Oberlin, Ohio.

Superintendent of Buildings and Grounds — Complete responsibility for buildings and grounds, operation, maintenance and repair; plant consists of fifteen major buildings and forty acres of campus; salary commensurate with background experience; house available; college is in middle west in community of 25,000; send resumé to Box CO 350, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds — Ohio college of 1200 enrollment in pleasant location; looking for man with substantial experience in building and ground maintenance, plant engineering and construction, personnel supervision and purchasing; challenging opportunity; salary open; please send complete resumé, recent picture, and date available. Send information to Box CO 347, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds — For a private liberal arts college in metropolitan area in middle west beginning summer, 1960; must have had some previous experience; send details about educational training and experience; also references. Write Box CO 325, COLLEGE AND UNIVERSITY BUSINESS.

FOR SALE

Opportunity in Texas to buy school location; 8 acres, 14 buildings, some brick; suitable for Theological, Military, boys or girls boarding school; present school moving to larger quarters; terms. Write Box CS-4, COLLEGE AND UNIVERSITY BUSINESS.

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interiors from new University of Miami dormitory for women by Robert M. Little, A.I.A.; decorator, Betty Lou Merriam of Haygood Lawster; all upholstered and wood furniture by Selig.

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NEW CASTLE PRODUCTS, INC., NEW CASTLE, INDIANA
In Canada: New Castle Products Canada, Ltd., St. Lambert, Que.

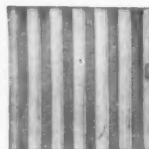
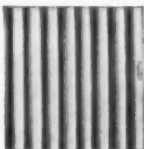
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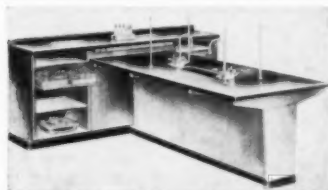
Edited by Bessie Covert

WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 133. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Student Laboratory Tables for Semimicro Chemistry

A new line of student laboratory tables designed especially for teaching Semimicro Chemistry is announced by Kewaunee. Provided with a drop front compartment for storage of the 107-bottle reagent trays,



the tables can have either individual locked student drawers for storage, or open compartments for tote trays. The Perimeter type table shown in the illustration permits four students to work sitting down and shows the open compartments for tote tray storage. In addition, tables are available in several designs for two, four, six and 12 students. Kewaunee Mfg. Co., 5028 S. Center St., Adrian, Mich.

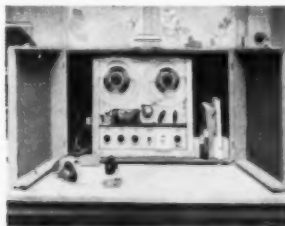
For more details circle #691 on mailing card.

Power Demand Limiter for Electric Unit Ventilators

Barber-Colman introduces an outdoor-compensated cycling mechanism for limiting power demand during unoccupied and warm-up periods in buildings heated by electricity. Normally applied only when utility demand metering equipment is used, the control automatically varies the "on-time" relative to "off-time" on a repetitive cycle basis, increasing "on-time" proportionately as outdoor temperature drops. The Power Demand Limiter may be adapted to practically any application where the load to be controlled is a direct function of outdoor temperature. Barber-Colman Co., Rockford, Ill.

For more details circle #692 on mailing card.

Duplex Tape Recorder for Language Laboratories



The new Califone Duplex Tape Recorder, Model LP 901 is designed particularly for use in language laboratories.

When installed in the student's booth, he uses a master tape on his individual recorder. After listening through his earphones, he responds into his microphone, hearing himself at once. Both the teacher's and the student's voices are recorded on the Duplex Recorder, making play back for comparison and further study simple. The "master" cannot be erased, but the student can record, erase and re-record on the lower track. Rheem Califone Corp., 1020 N. La Brea Ave., Hollywood 38, Calif.

For more details circle #693 on mailing card.

Mobile Science Table Fully Equipped for Demonstration

All requirements for science instruction in chemistry, physics and biology are met in the "Instructolab," a mobile science demonstration table. It is completely self-contained with its own water, gas, vacuum, air and electrical systems and all necessary apparatus for conducting experiments. An overhead projector equipped with 200

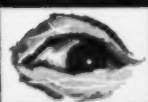
transparencies of science charts, tables, diagrams and the like also projects instructor's notes and even live experiments. Two instruction booklets are supplied with the



"Instructolab" as well as 110 chemicals. Laboratory Furniture Co., Inc., P.O. Box 590, Mineola, L.I., N.Y.

For more details circle #694 on mailing card.

(Continued on page 116)



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FiliGrille is a new grillework in standard designs, factory-fabricated in customized



panels, and engineered for simple and economical installation as space dividers and screens in entryways, cafeterias, classrooms and other areas. Made of 3/4-inch

polystyrene in a frame of anodized aluminum, the attractive and useful grillework has a standard white finish but can also be factory painted in colors or metallics as desired. **Holcomb & Hoke Mfg. Co., Inc.**, Dept. 1211, 1545 Van Buren St., Indianapolis 7, Ind.

For more details circle #695 on mailing card.

Space-Saving Flask for Laboratory Sciences

Especially designed to take up less area and pack more closely on shelves in refrigerators and cabinets, the new Kimble square-shaped, volumetric flasks come in five sizes and are manufactured from Kimble KG-33 borosilicate glass. Containing all of the qualities found in Kimble's hard

glass line, including durability, stability and resistance to thermal shock and chemical attack, the new square flasks meet National Bureau of Standards specifications. **Kimble Glass Co., sub. of Owens-Illinois**, Toledo 1, Ohio.

For more details circle #696 on mailing card.

Versatile Chair Desk Has Removable Top

The extra large one-piece writing top on the new Brunswick chair desk can be re-



moved or replaced with a tablet arm accessory. Seat and back are of fiberglass and the top is of Ophtho-lite parchment-pattern melamine plastic. One of the Contemporary Series, the chair desk has a one-piece understructure and a large book storage area under the seat. **The Brunswick-Balke-Collender Co.**, 623 S. Wabash Ave., Chicago 5.

For more details circle #697 on mailing card.

China-Cote Cups for Vending Machines

Two disposable hot drink cups made of a new lighter-weight, economy-priced China-Cote are now offered for use in vending machines. Both cups are in the seven-ounce hot drink vending size in the squat shape (C7WL6V) and the tall shape (C7RL6V). The standard Lily heavy-weight China-Cote hot drink vending cups are still available in the seven and nine-ounce squat shape sizes for vending use. **Lily-Tulip Cup Corp.**, 122 E. 42nd St., New York 17.

For more details circle #698 on mailing card.

Correlated Furniture Grouping for Institutional Food Service

Tables and chairs for cafeterias, dining rooms, lunchrooms and similar food serv-



ice areas are included in the correlated group introduced by Howell. Table tops are of laminated plastic in colorful patterns designed especially for the new line and the new style pedestal bases and legs harmonize with Howell chairs. Flexibility in planning room arrangements is permitted through the wide assortment of top styles, pedestal designs and sizes available. **The Howell Co., Contract Div.**, St. Charles, Ill.

For more details circle #699 on mailing card.

(Continued on page 118)

LASTING QUALITY at LOW COST

Smithcraft FEDERAL

Quality Smithcraft construction for extremely long-term use.

Your choice of steel or plastic side reflectors.

High lighting efficiency, in cutoffs of 35° x 25°, 35° x 45° or 45° x 45°.

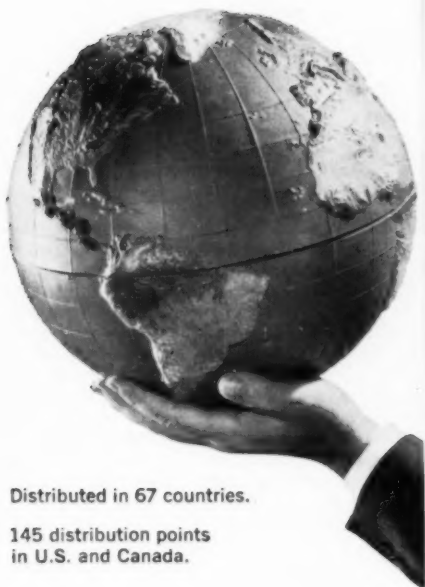
Quick, efficient maintenance — baffle swings open easily, side reflectors easily removable for cleaning.

Safety-locked baffle opens from either side — cannot be removed inadvertently.

Available in 4 or 8-foot lengths, with 2 lamps. Also in matching 4-lamp unit.

Light-conditioning by *Smithcraft*—America's finest fluorescent lighting

Smithcraft Lighting CHELSEA 50, MASSACHUSETTS



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healthier* environment**

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Airkem's odor counteractants combat

odors at their sources—leaving a lasting air-freshened effect. Our cleaner-disinfectant A-3 is unique because it actively combats odors and leaves an air-freshened effect. Airkem's advanced, odor-controlled aerosol insecticide is safe to use around foodstuffs, yet is deadly even to resistant insects.

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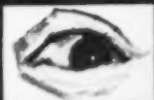


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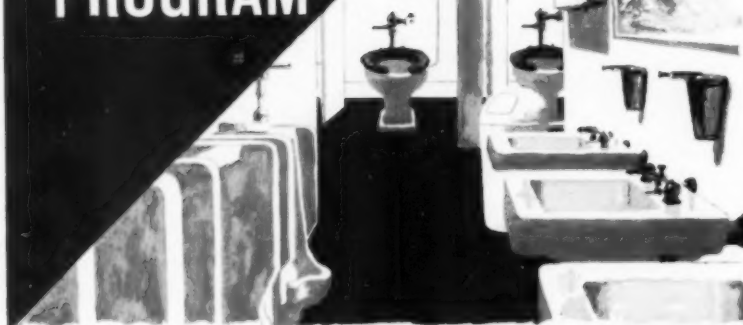
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Speedscrub Floor Scrubber Conforms to Surface Irregularities

A multi-sectioned brush, designed to conform automatically to surface irregularities, is a feature of the new Speedscrub Floor Scrubber. The bristles are woven on to the all-metal-back by wire and the longer outer bristles assure all bristles



maintaining contact with the floor under extra pressure. Brush and motor are one unit which is mounted on an "A" frame that is raised or lowered with one central control, permitting variable brush pressure control. Speedscrub will efficiently scrub or strip surfaces such as composition tile, ceramic tile, wood or cement. The brush will raise to clear door jams and will extend under kickboards. The motor is electrically reversible, water flow is adjustable and the tank has a capacity of 10 gallons. Nobles Engineering & Mfg. Co., 645 E. 7th St., St. Paul 6, Minn.

For more details circle #700 on mailing card.

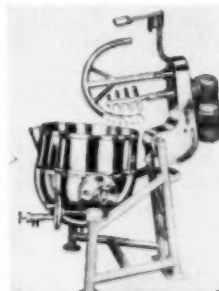
Stainless Steel Sinks in Ledge Type Design

Two new sinks with ledge type design are introduced by Universal-Rundle in 20-gauge chrome stainless steel. The Captain, a 32 by 21-inch double compartment unit, has a four-hole ledge for spray fitting. The single compartment 24 by 21-inch Corporal flat rim sink has provision for the same accessories. Universal-Rundle Corp., New Castle, Pa.

For more details circle #701 on mailing card.

Line of Cooker-Mixer Kettles in Stainless Steel

Designed to speed volume preparation of foods while saving costs, the new line



of "Cooker-Mixer" sanitary kettles is offered in stainless steel. Standard 40, 60, 80-gallon and larger capacities are available. The heavy duty Model DTA-2 steam-jacketed, agitator kettles permit clean, efficient and economical operation with savings in labor, preparation time and food waste. Groen Mfg. Co., 1900 Pratt Blvd., Elk Grove Village, Ill.

For more details circle #702 on mailing card.

Panic Exit Device Opens at a Touch

The new Yale 30 Mortise Panic Exit Device designed for use on fire doors allows a door to be opened when the slightest pressure is applied to its horizontal bar, but prevents fire doors from springing open



during a fire when they should remain closed. All parts susceptible to melting under emergency circumstances are protected by the door itself. The new device is available in a wide variety of finishes and trim designs. The Yale & Towne Mfg. Co., 11 S. Broadway, White Plains, N. Y.

For more details circle #703 on mailing card.

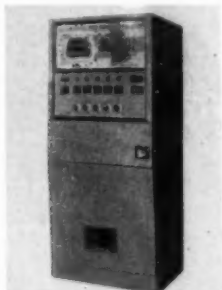
"Speed Feed" on Photocopier Permits Faster Insertion

Documents can be inserted faster for photocopying with the new "speed feed" feature of the Dial-A-Matic "Auto-Stat." Specially designed rollers which clamp the document being inserted and guide it automatically are responsible for the easier and faster operation of the desk-top, all-purpose unit. American Photocopy Equipment Co., 2100 Dempster, Evanston, Ill.

For more details circle #704 on mailing card.

Hot Toasted Sandwiches Available from Vendor

The new Star Hot Toasted Sandwich machine, which serves 150 hot or cold sandwiches, pastries or other items, is now available for institutional use. Foods are kept fresh under 42-degree refrigeration, can be warmed or toasted in an infra red oven, or served cold, as desired. Five different selections can be supplied for 24-



hour service in cafeterias, dormitories, special departments or wherever indicated. Heating and toasting are done on a 20-second cycle. The refrigeration unit is hermetically sealed and has variable thermostatic control to hold temperature at any desired level. Star Cooler Corp., 9271 Manchester Rd., St. Louis 17, Mo.

For more details circle #705 on mailing card.

(Continued on page 120)



La Scala

by da Vinci^{INC}



Transitional in styling, La Scala seating excites instant murmurs of approval. Fits graciously into every decor, lending color, taste and comfort to the scene.

Steel construction and advanced da Vinci engineering imparts lasting durability to a supremely striking, light scaled design.

Aluminum clad, spring steel frames, rustproofed by the exclusive Alumaseal process for extra value. Durable supported vinyl fabrics in a selection of colors. Urethane foam cushions with zipper closures. Shop La Scala today at our nearest showroom, or write direct for further information.

Troy

CONTRACT, CASUAL AND SUMMER FURNITURE
GARDEN AND BEACH UMBRELLAS ■ TROY, OHIO
SUNSHADE COMPANY

Showrooms: TROY/612 Grant St.

CHICAGO/American Furniture Mart ■ NEW YORK/One Park Avenue ■ DALLAS/Decorative Center

Also, PITTSBURGH/Oxford Galleries ■ KANSAS CITY/Payne Galleries ■ MIAMI/da Vinci
LOS ANGELES/Richards ■ SAN FRANCISCO/Robson ■ SEATTLE/Siegal ■ BOSTON/New England Contract

Dish and Tray Trucks Speed Collection of Dishes

Soiled dishes, silverware, trays and other food service utensils are quickly removed



with the help of the new Ideal dish and tray trucks. The sturdy units are built for steady use, mounted on six-inch casters, two swivel and two rigid for maneuverabil-

ity, and move silently and easily even when heavily loaded. Truck shelves are of 18-gauge stainless steel with raised edges to protect contents. The tubular U-shaped frame and V-nose construction give strength and facilitate cleaning. Dish trucks are available in two and three-shelf models, and tray trucks in four and five-shelf models. Swartzbaugh Mfg. Co., Murfreesboro, Tenn.

For more details circle #706 on mailing card.

AD Controlled Suds for Coin-Operated Laundries

Condensed AD Controlled Suds are available in two sizes, packaged especially for use in coin-operated laundry machines in dormitories and other residence quarters.

The two-ounce pouch sells for five cents and the 3 $\frac{3}{4}$ -ounce carton for ten cents. Both pouch and carton fit in vending machines. AD Controlled Suds Detergent gives top-grade washing and perfect rinsing and is safe for all washable fabrics. A special laundry brightener highlights colors and makes white laundry white. The "controlled suds" action prevents suds



overflow and protects washers from suds lock. Colgate-Palmolive Co., Associated Products Div., 300 Park, New York 22.

For more details circle #707 on mailing card.



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... of how your new library should look. In our "LIFE-LIKE" Planning Service we use scale models to plan an arrangement to suit your requirements. Photos of various "set-ups" are submitted for your consideration at no cost. Ask for our catalog. Then permit us to call on you.



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When you want the best... the very best

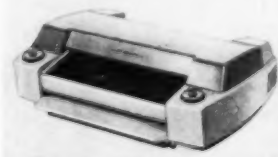
Interior Finish Fiberboard Combines Many Advantages

Classic Cushiontone Plank is a new interior finish fiberboard for walls and certain specialized ceiling applications. It combines acoustical efficiency, structural strength, decoration and insulation, and absorbs up to 70 per cent of the noise that strikes the surface. It can be nailed or stapled to wood furring strips, or cemented directly to existing wall. Manufactured in 12-inch wide sections eight or ten feet in length, it features a lace-like arrangement of tiny sound absorbent perforations on its surface. It is factory-finished with two coats of washable white paint to provide even light reflectance without glare, and can be cleaned with a damp cloth or ordinary wallpaper cleaner. Armstrong Cork Co., Lancaster, Pa.

For more details circle #708 on mailing card.

Dart Desk-Top Copy Maker Is All-Purpose Machine

Anyone can make exact copies of forms, letters, charts, diagrams, drawings and other translucent originals with the new Dart



desk-top all-purpose copy maker. Available in 13 and 18-inch sizes, it permits the making of any number of copies from the same original for minimum material cost. The semi-moist diazo process makes clear, opaque, black-on-white semi-dry finished prints, and with the second lamp and an inexpensive accessory processor, the Dart is also a photocopy machine. It is simple and clean to operate and maintain and is finished in two-tone baked enamel. Copy-mation, Inc., 5650 N. Western Ave., Chicago 45.

For more details circle #709 on mailing card.

(Continued on page 122)

DURABLE and SMART furniture



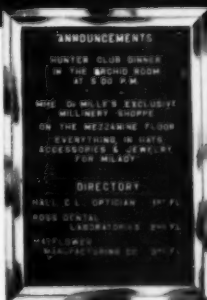
NO. 8233
Wall-Saving Side Chair
(NO. 8232 matching
arm chair.)

Wide assortment of chairs and tables. See your dealer
or write us for our distributor's name.

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Manufacturers
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Permanent Displays: Chicago • New York • Miami • Boston • San Francisco

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for indoors or outdoors, with
or without glass doors and
lighting, metal or hardwood
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Handsome, sturdy, highly visible
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self-sealing, in
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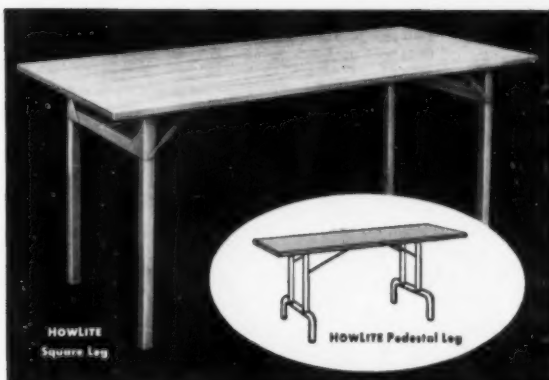
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Dept. CB 311 No. Desplaines St. Chicago 6, Illinois Tel. STate 2-6683



Budget-Priced Folding Table

offers **NEW** HowLite Plastic Top

EXCLUSIVE PRODUCT OF HOWE FOLDING FURNITURE

Priced below tables with plastic laminate tops, this HOWE
Folding Table, with its exclusive, new HowLite plastic top,
provides these special advantages:

1. **HowLite is not harmed** by soaps, water, household bleaches, hot kitchen greases. Its smooth, nonporous surface seals out food and beverage stains, wipes clean with a damp cloth!
2. **HowLite is 1/16" thick.** Its handsome "Golden Birch" pattern is inlaid all the way through to the backing. Despite hard use, color and pattern can't wear away!
3. **HowLite's resilient vinyl plastic content** resists marking, subdues the clatter of silverware and china, helps prevent chipping and cracking, provides an excellent writing surface.
4. **HowLite plastic tops** are permanently bonded to a solid sheet plywood base trimmed with a channel aluminum or plastic flush edge.

Built to last, HowLite plastic top folding tables are supported by a riveted and welded steel understructure. *This chassis runs the full length of the table.* Legs are individually braced. Strong enough to support 2,000 lbs., HowLite plastic top folding tables are light in weight, can be handled by one man!

HOWE FOLDING FURNITURE, INC.

1 PARK AVENUE, NEW YORK 16, N. Y.

Free!

HowLite plastic top folding tables come in two styles: Square Leg and Pedestal Leg. Choose from 14 different sizes! Get illustrated literature. Write now!



HOWE FOLDING FURNITURE, INC., Dept. CUB-40
1 PARK AVENUE, NEW YORK 16, N. Y.

Gentlemen: Please send me illustrated literature on
budget-priced HowLite plastic top folding tables.

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Institution _____
Address _____
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This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent-approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
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- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

Individualized descriptive literature for mailing to the parents of incoming students is furnished for each preparatory school, college or university.

WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the students at:

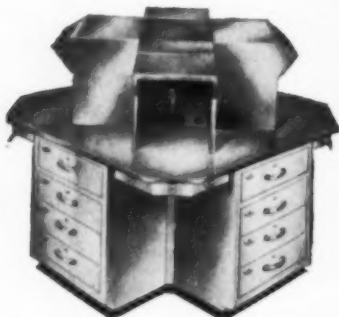
Name of School
or College _____
Address _____
Please contact: _____
Name _____
Title _____

RICHARD C. KNIGHT
INSURANCE AGENCY, INC.
Insured Tuition Payment Plan

38 Newbury Street
Boston 16, Mass.

Group Project Table for Science Laboratory

Designed to enable groups of students to work on advanced projects or special assignments, the Duralab Group Project Tables have all the services necessary to



perform advanced work. The tables are available in varying arrangements to suit the need. Features of the construction include lead coated sheet steel, dual welded interlocking joints, integral adjacent components, sound deadened drawer heads and doors, acid, alkali and solvent resistant finishes, and others. **Duralab Equipment Corp., 991 Linwood St., Brooklyn 8, N.Y.**

For more details circle #710 on mailing card.

Pacemaker Floor Machines Have Improved Features

Several improvements are built into the new models of the Pacemaker series of floor machines. These include the addition of a foot-operated "Kwik-Lok" handle adjustment for quick setting of the handle position in use, and a non-marking rubber bumper on the top of the motor. Driving lugs are now of ductile iron for increased strength and Zolotone plastic paint provides a durable finish. **Advance Floor Machine Co., Spring Park, Minn.**

For more details circle #711 on mailing card.

Full Line of Closed-Circuit TV for Educational Needs

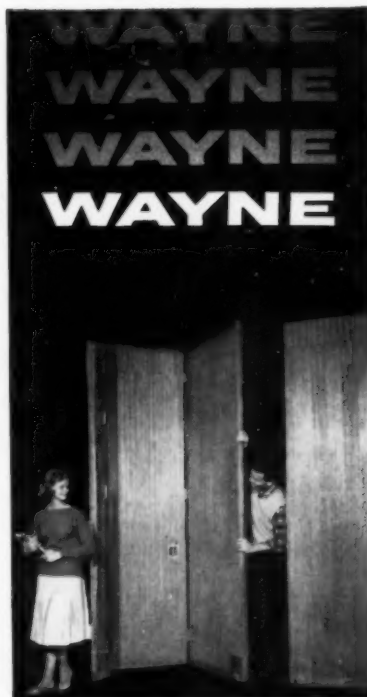
Five closed circuit television cameras and two monitors for educational and



commercial use are now available in the Motorola line. Designed for operation by non-technical personnel, two of the cameras have but one operating control, an on-off switch. The basic general purpose camera is available in four versions and is a quality, highly sensitive, stable instrument weighing 12 pounds. Remotely controlled functions can be added to the camera. The Motorola educational monitor is the Classroom 21, capable of switching from a closed circuit to standard broadcast signals by turning a single control. The front-mounted loudspeaker can be used as an audio amplifier. **Motorola Communications and Electronics Inc., 4501 W. Augusta Blvd., Chicago 51.**

For more details circle #712 on mailing card.

(Continued on page 124)



WAYNE FOLDING PARTITIONS

work wonders in saving
space (and school dollars)



In gymnasiums, auditoriums and classrooms.



Available in seven facing materials, including beautiful long-wearing vinyl plastic at no extra cost. Choice of four core materials, automatic or manual operation. Engineered for all budgets. Send for new catalog today.

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Built-in swivel lamp (Model 319) designed
for Marquette University

Next time you plan dormitory lighting ... give
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STURDY FOLDING CHAIRS ... LAST YEARS LONGER!

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— at no additional
cost — folds out all
way when chair is
folded



Extra wide, con-
toured steel seat
and back

U shaped cross
bars can't twist or
break

Tubular steel
frame — wobble
free construction

Also available with upholstered or plywood seat.
Folding Tables, 30 and 36 inch tops, available
for Contract use.

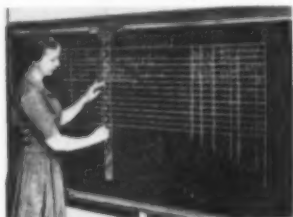
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service! In quality, style, construction
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field in every price range. Built for
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L & L T-Rule for Chalkboard Use

A new teaching aid called the L & L T-Rule facilitates drawing at the chalk-



board. It permits the use of ruled forms, graphs, mechanical and geometric drawings, music staves and similar material on

the chalkboard with accuracy and ease. Resembling a T-square mounted in a track, the device moves across the chalkboard surface and is adjustable to any angle. Material requiring rules can be accurately drawn in minimum time to produce visual aids in mathematics, music and other classes. **L & L T-Rule Sales, Inc., 5515 Excelsior Blvd., Minneapolis 16, Minn.**

For more details circle #713 on mailing card.

Pneumatic Equipment Relay for "Fail-Safe" Operation

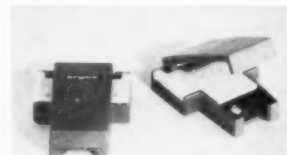
Protection in case of air line failure of pneumatically controlled air conditioning, heating and ventilating systems is afforded with the compact new Type 783 reverse

relay developed by Powers Regulator. The auxiliary device gradually reverses the action of pneumatic-operated valves, motors and dampers, converting normally-closed pneumatic equipment to normally-opened operation and vice versa. It is small enough to mount easily on a valve or damper motor, behind control panels or next to a wall-mounted instrument. **The Powers Regulator Co., 3434 Oakton St., Skokie, Ill.**

For more details circle #714 on mailing card.

Argus Film Splicer for Clean, Quick Splice

Designed for use with both eight and 16mm film, the new Argus motion picture



film splicer employs dry splice tape to produce a clean, quick splice without scraping, overlapping or gluing. The pocket-sized Argus Splicer cuts an "S" joint which eliminates the loss of film loop, thus preventing jamming in the projector caused by bends. **Argus Cameras, Inc., Ann Arbor, Mich.**

For more details circle #715 on mailing card.

Electric Door-Opener and Closer Available on Winnen Incinerators

The operation of Winnen commercial incinerators is simplified by the addition of an electric door-opener and closer. It is available at slight extra cost on all incinerator models with the guillotine-type door. **Winnen Incinerator Co., 932 Broadway, Bedford, Ohio.**

For more details circle #716 on mailing card.

Quick Interlocking Device Gives Lang-Lab Versatility

A versatile language laboratory unit is provided in the Lang-Lab which features the new "Tite-Joint" quick interlock for flexibility. It can be set up, changed, enlarged or rearranged in minutes, without the use of tools. Individual side and center

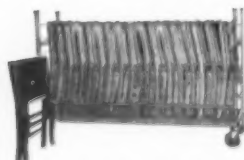


panels are offered in various materials and colors. The Lang-Lab desk unit snaps in place when the classroom is used for ordinary studies. Top and front fold down and are offered in Formica in choice of pattern and color. **Universal Language Laboratories Corp., 200 W. 57th St., New York 19.**

For more details circle #717 on mailing card.



NEW DESIGNS in folding furniture



Rastetter chairs fold flat, transport easily on Rastetter Chair Trucks.

An exciting new design from Rastetter... the model 592 wood chair that folds! Luxurious, stylish, *economical* Rastetter chairs are available in 23 models with a variety of striking finishes and smart leatherettes. Ideal wherever comfortable, durable chairs are needed, and they fold and stack for compact storage.

WRITE TODAY FOR MORE INFORMATION. Fill in the blanks below and then attach this coupon to your letterhead. Mail to:

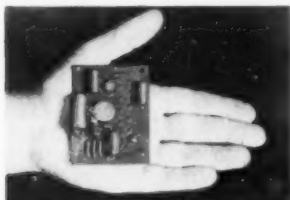
LOUIS RASTETTER & SONS COMPANY, 1326 WALL STREET, FORT WAYNE, INDIANA

NAME _____ TITLE _____

Executone Sound Systems

Use Transistorized Pre-Amplifiers

Small transistorized pre-amplifiers are the heart of the new Executone sound system which gives distortion-free reproduction of voice and music, even in large areas such as auditoriums. One pre-amplifier is located adjacent to or built into every Executone microphone, radio tuner and record player in the system to boost the weak signal and make it strong enough to travel long distances to the power booster amplifier or mixer, without noise pick-up or other decrease in quality. Economies of



stallation and service are possible with the system and components of the new sound line are available in flush-mounted, surface-mounted or desk models to harmonize with the design of the institution. Executone, Inc., 415 Lexington Ave., New York 17.

For more details circle #718 on mailing card.

Wall-Mounted Dimmer for Variable Light Levels

Variable light levels for both fluorescent and incandescent lights can be achieved with fingertip control through the new Moe Light Dimmer. The wall-mounted unit provides infinite light control from brilliance to a dimmed glow. It is a transformer type switch and controls up to eight rapid-start 40-watt fluorescent lamps or eight trigger-start 20-watt fluorescent lamps, and any number of incandescent lamps up to a total load of 360 watts. Moe Light Div., Thomas Industries Inc., 410 S. Third St., Louisville 2, Ky.

For more details circle #719 on mailing card.

Fire Safety Ladder Folds Against Wall

Available in models for two or three-story buildings, the new "Speed-Scape"



fire safety ladder telescopes against the outside wall of a school or other institution to take up less space than the average drain spout. It is easily opened with a trigger-latch only from the second or third floor and is tested to support nearly three tons. The ladder is made from non-corrosive aluminum and is firmly shot-bolted

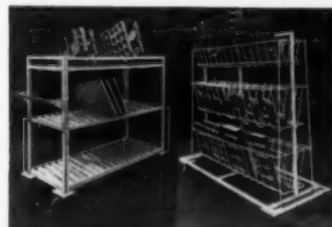
against the outside wall. It is light in weight, sturdy and compact. B. & R. Ladder Enterprises, Inc., 5713 Euclid Ave., Cleveland 3, Ohio.

For more details circle #720 on mailing card.

Pan and Tray Racks Facilitate Washing

Washing of pans, trays and utensils is facilitated with two new improved pan racks introduced by Alvey-Ferguson. A-F Model B-187 shown on the left in the illustration is a "Shelf-Type" Pan Rack with three wide shelves and bumper style handle. Model B-191 on the right is an "Assorted" Pan Rack with three continuous pockets on each side for holding all types of pans, exposing all sides to high pressure

spray for washing and sanitizing. Both racks slide into the washing machines and are easily wheeled to destination for load-



ing and unloading. Alvey-Ferguson Co., 5947 Disney St., Cincinnati 9, Ohio.

For more details circle #721 on mailing card.

(Continued on page 126)

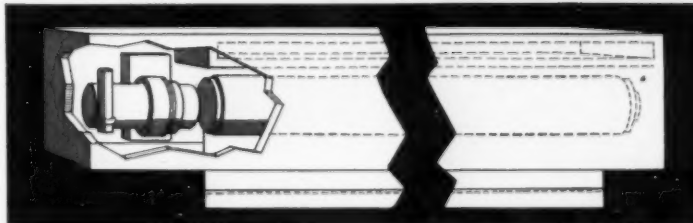
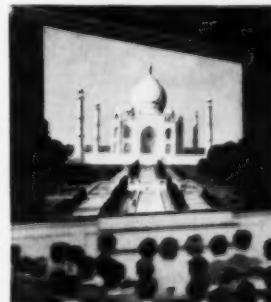
Audio Visual Bulletin

DA-LITE SCREEN COMPANY

IN THE INTEREST OF
EDUCATIONAL
AV PROFESSIONALS

FINAL SUCCESS OF FILMED PRESENTATION DEPENDS ON QUALITY OF PROJECTION SCREEN

Good filming, careful projection—yet the picture lacks clarity and colors are weak! This is a case of projecting on an improper surface. Da-Lite engineers have developed a screen surface that protects the audio-visual professional from such a problem. The famous White Magic glass-beaded surface is unequalled in quality. This screen gives outstanding clarity of picture; faithful reproduction of color. You'll find that you can seat your audience over a wider area with this new surface, too. For complete details on types of screen surfaces available and their proper application, write Engineering Department, Da-Lite Screen Company, Inc.



NEW! ELECTRICALLY-OPERATED SCREEN IDEAL FOR INSTALLATION IN AUDITORIUMS

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and industry—this new screen may be installed in a concealed position—or mounted on wall and finished to match! Write for technical bulletin with complete details on this outstanding product.



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SCREEN COMPANY, INC., WARSAW, INDIANA

Wet Tray Caddy Permits Complete Drying

Proper drainage and drying of hot, wet trays is assured with the new Wet Tray



Caddy, Model T-222. Trays are stacked on edge on the sloped top shelf as they are taken from the dishwasher. When dry, they may be transferred to the lower shelf for flat stacking, permitting re-use of the top shelf for drying. The top shelf is easily removed for periodic cleaning and has a drain trough. Welded stainless steel construction and ball bearing swivel type casters with neoprene tires make the caddy sturdy and easy to handle. **Caddy Corporation of America, Secaucus, N.J.**

For more details circle #722 on mailing card.

Vinyl Asbestos Tile With Color-Chip Styling

Color-chips throughout the full thickness of the tile are featured in the new Vina-

Lux 800 series vinyl asbestos tile. Designed to meet the style and service requirements of heavy duty use, it can be installed over concrete, on, above or below grade, or on felt-over-wood subfloors. It is grease-proof, alkali resistant and easy to maintain. The first pattern introduced from the new Azrock Houston plant designed for the exclusive manufacture of vinyl asbestos tile products, the tile comes in nine-inch squares in six colors. **Azrock Products Div., Uvalde Rock Asphalt Co., Box 531, San Antonio, Texas.**

For more details circle #723 on mailing card.

Paper Plate Dispenser Eliminates Fumbling

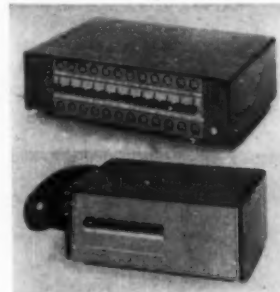


A paper plate dispenser, easily installed in a counter-top and available for both six and nine-inch plates, eliminates fumbling and plate waste. It consists of a metal barrel with a spring mechanism that keeps pushing the plates to the top where a dispensing arm with a rubber suction cup picks up one plate at a time and lifts it from the stack. **Dixie Cup Co., 24th and Dixie Ave., Easton, Pa.**

For more details circle #724 on mailing card.

Transistorized Intercom System Is Flexible and Versatile

An advanced, flexible system to solve intercommunication problems from the



simplest to the most complex is announced by Dictograph. The fully transistorized system reduces costs of installations and incorporates all the services of the three present systems with important new features. A newly developed "magic-eye" indicates who is calling and automatically leaves a message if the person called is away. The new system features hands-free operation, right-of-way priority, and advanced acoustical design with two-channel transistorized amplifier and a conference circuit. A handset can be added or mounted separately. The system ensures complete privacy and consists of the executive (shown at the top of the illustration) and master stations. **Dictograph Products Inc., Jamaica, N.Y.**

For more details circle #725 on mailing card.

(Continued on page 128)

EQUIPMENT FOR ALL VOCATIONAL AND COMMERCIAL DEPARTMENTS

H
A
R
C
O



AC-460

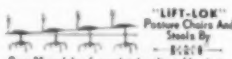
AC-460 The deluxe of drawing tables. Large 24" x 24" adjustable drawing surface (larger available). Equipped with built-in board storage for 6 boards 20" x 28" and built-in taboret with 6 drawers with individual locks and keys and master key.



2006-A

Teacher's desks, demonstration stands, student's business machine stands, adjustable typing stands or adjustable chairs—all are posture equipment in matching colors and styles.

2006-A adjustable typing stand. After individual is properly seated by Harco adjustable chair, typewriter platform can be adjusted to correct relation between individual and typewriter. Provides proper posture and typing efficiency.



"LIFT-LOK"
Posture Chairs And
Stools By
HARCO

Over 25 models of completely adjustable chairs and stools. Full 7" height adjustment. Write for catalog and price list of complete line.

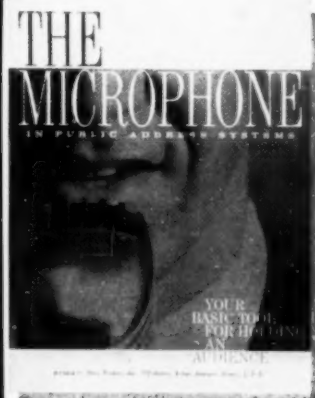
C-1624 Stool. Designed for all vocational departments. Drafting, biology, chemistry, art, shops, etc. Full 8" adjustment—cast iron base with round steel or wood seat. Back available.

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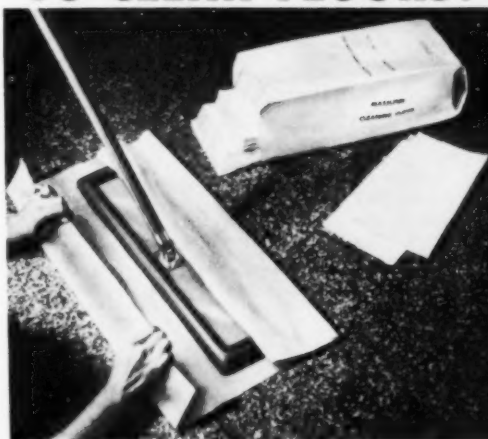
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improve their microphone
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* They are fire retardant and contain a germicide

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Our staff of skilled Architects and Interior Designers, after a thorough study and analysis, will assist the College and its Architect in a coordinated program of planning Residence Hall dormitory space, built-in furniture and interior decoration. A few examples of Hilliard planning are listed at the right. We'll be glad to tell you more upon request.

Men's and Women's
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Student Union
Building
University of New
Mexico
Student Center
Portland (Oregon)
State College
Housing Units
University of Utah
Men's Dormitory
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QUADRALINE
by American Desk

FOR PRODUCTIVE LECTURE PERIODS!

Series 700
Tablet Arm Chair



Lecture room favorite from the outstanding Quadraline group of hard workers! A sturdy Tablet Arm chair designed to correct writing angle for proper posture... provide large work area with ample elbow support! Right or left arm units available with Fibre-glass back and seat. Work top, 11½" x 23½".

Write For Full Color Illustrated Catalog



By American Desk
Manufacturing Company
TEMPLE, TEXAS

**Series 6000 Economy Chair
Has Tubular Steel Legs**



Durable welded construction, light weight and canted tubular steel legs fitted with swivel-type glides to protect walls

are features of the Series 6000 economy chair. It is available in seat heights of 11 to 18 inches and the design assures comfort and posture control. The Series 6000 is available in five colors with the finish resistant to water, acid and alkalis. **American Desk Mfg. Co., Temple, Texas.**

For more details circle #726 on mailing card.

**Polycrystalline Ceramic
Transmits Light**

Polycrystalline ceramic that readily transmits light and is made from powders is a new material developed by General Electric. It also possesses the extremely high strength characteristic of alumina ceramics, according to the report, can with-

stand higher temperatures than most ceramics, and can be pressed into any desired shape. Called Lucalox, the new material is described as having the composition of a ceramic, the structure of a metal, and light-transmitting ability approaching that of glass. **General Electric, Schenectady, N.Y.**

For more details circle #727 on mailing card.

**Nine Improved Vacuum Cleaners
In Multi-Clean Line**

Exclusive features built into the nine new Imperial Vacuum Cleaners in the Multi-Clean line give them an attractive appearance, together with efficient operation. The patented, pleated, washable filter used in the machines is made from a special synthetic fiber that does not rot or mildew, and provides more than 1400 square inches of filter area. It can be washed, rinsed and



quickly dripped-dry. The line consists of three series: the Imperial "5," powered by a 1/2 h.p. motor; the "10" with a one h.p. motor, and the "15" with a 1 1/2 h.p. motor. Each is available with 7, 12 and 17-gallon tanks in either heavy gauge stainless steel or standard seamless steel with baked enamel finish. **Multi-Clean Products, Inc., 2277 Ford Pkwy., St. Paul 16, Minn.**

For more details circle #728 on mailing card.

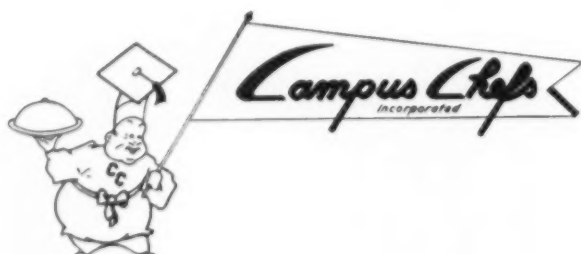
**Cleaner-Disinfectant
for Toilet Bowl Sanitation**

Safety and efficiency in use are assured with the new formulation, packaging and dispensing of First Glo-Bol, a toilet bowl cleaner-disinfectant. Packed in a one-ap-



plication transparent film package which, when dropped unopened into the toilet bowl, dissolves in seconds to release the Glo-Bol granules into the water, the product eliminates the possibility of breakage and spillage and of exposure to personnel through actual handling. The cleansing foam rises above the water line to dissolve the ring of mineral deposits left by evaporation and produces high detergency with odorless disinfection. Soil is carried away with bacteria to leave the bowl sanitized. The prepackaged portion control eliminates measuring and handling and assures proper chemical activity and cleaning. **Platt & Smillie Chemicals, Inc., 3419 Gratiot St., St. Louis 3, Mo.**

For more details circle #729 on mailing card.



***An Invitation
To School Administrators***

If your student food service is less than 100% satisfactory, let us, without obligation on your part, make a

Free Survey

of your Food Operation - - then show you how **CAMPUS CHEFS** can fully satisfy the individual requirements of your student food service.

CAMPUS CHEFS offers complete professional management of your food service - - relieves you and your personnel of all responsibility for the operation, yet is guided by your policies at all times in all respects.

Your inquiry will be welcomed. Write or phone today for immediate consultation.

CAMPUS CHEFS
INCORPORATED

125 BROAD STREET, ELIZABETH, NEW JERSEY

ELizabeth 4-5500

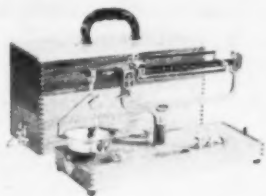
Ten Gallons of Milk Dispensed by Model N-10 Super

Two five-gallon cans of milk are dispensed by the N-10 Super milk dispenser manufactured by Norris. The redesigned unit is constructed of stainless steel with chrome plated exterior hardware, has two convenient dispensing valves, and an adjustable temperature control is mounted on the side of the cabinet. Refrigerated and non-refrigerated dispenser storage is also available for the N-10 Super Dispenser. Norris Dispensers, Inc., 2720 Lyndale Ave., S., Minneapolis 8, Minn.

For more details circle #730 on mailing card.

Portable Balance for Laboratory Use

A portable balance is now available in the Ohaus line of laboratory balances and



weights. Contained in an attractive and sturdy mahogany case, the balance can be used by merely removing the case top. It is sensitive to 10 milligrams and has a capacity of 311 grams with two 100-gram attachment weights. Ohaus Scale Corp., 1050 Commerce Ave., Union, N.J.

For more details circle #731 on mailing card.

Barrels and Cleaning Equipment Accommodated on Janitor Cart

Manufactured of one-inch tubular steel with sheet metal, and mounted on rubber four-inch self-lubricating wheels, the new Forbes Unit No. 1119 Janitor Cart is de-



signed to accommodate standard trash barrels and cleaning equipment. It is compact in design, yet has ample space for a pail and wringer or vacuum cleaner. Four New Style welded holder fittings of full ring type hold mops and brooms, and the large utility box between the push bars provides ample space for cleaning supplies. Forbes Brothers Co., 820 Santa Fe Ave., Los Angeles 21, Calif.

For more details circle #732 on mailing card.

"Convertible" Mopping Bucket in Smaller Size

Available in a smaller, 16-quart capacity, the flexible "Convertible" mopping unit

can now be used for mopping jobs of all sizes. One 16-quart bucket on the small, easily maneuvered dolly serves for small jobs, and the "Convertible" feature, consisting of two small steel wire hooks that couple single buckets into twin-tank units, quickly converts the unit for larger jobs. Geerpres Wringer, Inc., Box 658, Muskegon, Mich.

For more details circle #733 on mailing card.

Low-Priced Dish Truck for Fast, Efficient Service

Fast and efficient handling of dishes is effected with the new Colson low-priced dish truck. The three 18 by 22-inch stainless steel beveled shelves are free of crevices and the chromium plated tubular

frame is easy to maintain. The truck is designed for maximum maneuverability and

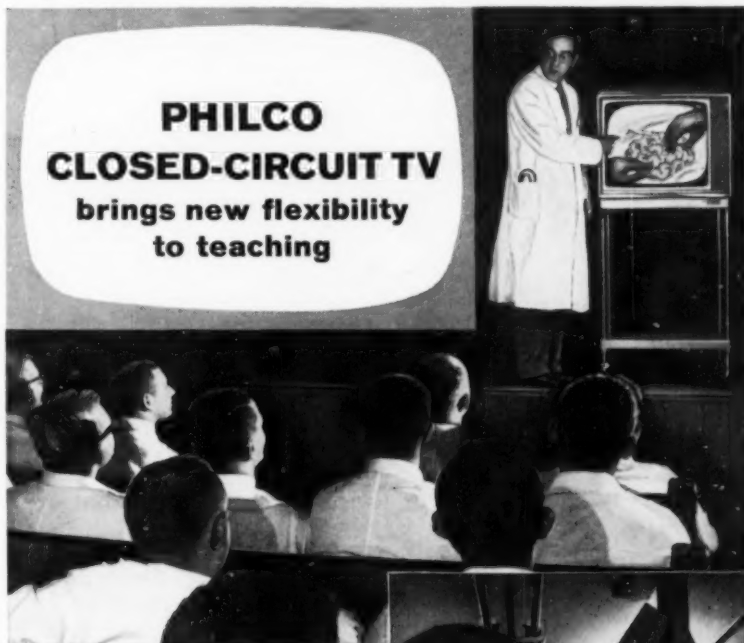


rolls on four swivel casters. The Colson Corp., 7 S. Dearborn St., Chicago 3.

For more details circle #734 on mailing card.

(Continued on page 130)

PHILCO CLOSED-CIRCUIT TV brings new flexibility to teaching



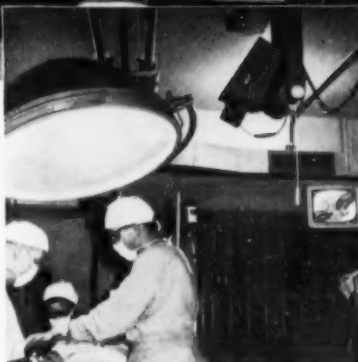
Philco, pioneer in fully-transistorized closed-circuit television, offers completely integrated instructional TV systems for schools and hospitals. Philco systems provide the ultimate in flexibility, incorporating any number of cameras, monitors, receivers and amplifiers, interconnected through a central console or a "patch panel"... with provisions for two-way conversations. Philco equipment is reliable, easy to operate and low in cost. Philco will help you design a system to meet your requirements. Write for information and your Philco Closed-Circuit TV Planning Guide.

Government & Industrial Group
4700 Wissahickon Ave., Phila. 44, Pa.

In Canada: Philco Corp. of Canada, Ltd., Don Mills, Ont.

PHILCO®

Famous for Quality the World Over



The World's First Integrated Hospital Closed-Circuit TV System was recently installed by Philco at St. Christopher's Hospital for Children, Philadelphia. It links the main operating room, lecture halls, auditorium, pediatric treatment rooms, psychologic observation rooms and the radiology department. Folder describing this system will be sent upon request.



**Shelf-Filing Facilitated
With Mobile Work Station**

The Mobile Shelf Filing Truck is a

self-contained work station for use with all makes of shelf-filing. With the mobile unit an operator can handle correspondence both to be filed and to be pulled from shelves as one combined operation, and the step-stool platform permits easy reach to top shelves. Correspondence or folders to be filed are held in either letter or legal-size width Flexifiles in a bin at the top of the truck. A large compartment below the bin with three vertical dividers takes folders removed from the file, and another large compartment carries blank folders, guides and other supplies. The platform automatically seals to the floor when the operator stands, then restores to casters for mobility. It rolls easily on two swivel and two fixed casters, is guided by a large handle which recedes into the top, and is sur-

rounded by rubber bumpers. **Remington Rand Div., Sperry Rand Corp., 315 Park Ave., New York 10.**

For more details circle #735 on mailing card.

High Style Institutional Ware Developed by Corning

Decor Dinnerware is a new line of high style institutional ware with a classic,



white floral pattern against a band of color. The new ware is made of the same lightweight durable materials as existing products in the Pyrex brand Double-Tough dinnerware line and is available on all 22 pieces of Corning institutional dinnerware. There are three varieties: Revel, Bluegrass and Grecian, in tones of coral, aqua and gray. New in Corning dinnerware is a universal stacking saucer which fits snugly into the top of a coffee cup so that several cups and saucers can be safely stacked. **Corning Glass Works, Corning, N.Y.**

For more details circle #736 on mailing card.

Only Conn brings your school an 85-year-old musical heritage



The Conn Organ is the product of almost a century of musical tradition...made by the world's largest manufacturer of band and orchestral instruments, specialists in tonal research.

An electronic organ represents a whole new world of musical experience for your students. It also represents a sizeable investment to your school board. So you must choose wisely.

Modern manufacturing techniques coupled with our knowledge of the science of music make it possible for the Conn Organ Corporation to build magnificent organs of great versatility and tonal contrast, yet reasonably priced.

There is a Conn Organ to meet every requirement. Talk to your Conn Organ dealer. He will be glad to discuss your particular requirements. And he can arrange monthly payments that are surprisingly low.

If you prefer to write for more information, here is our address: **Conn Organ Corp., Elkhart, Ind.**

There is a noticeable difference in a **CONN ORGAN**

Power-Groove Lamps for High Light Output

The new Director institutional lighting fixture is designed for use with Power-Groove lamps for high light output. The distinctive, modern unit has a 19-inch wide "Area of Light" with the two-lamp fixture producing 30,000 lumens of illumination, thus reducing the number of fixtures required for a given amount of light. The rigid louver may be released from either end for maintenance. **Smithcraft Lighting, Chelsea 50, Mass.**

For more details circle #737 on mailing card.

Streamlined Features Offered in Buffalo Food Cutter

The newly designed Buffalo Food Cutter with a capacity of seven pounds features



a fabricated steel bed plate, and a sealed gear reduction running in oil which eliminates oil leakage, has longer life and requires less servicing. Model 114D is available with or without the pedestal for bench installation. **John E. Smith's Sons Co., 50 Broadway, Buffalo 3, N.Y.**

For more details circle #738 on mailing card.

Giant Demonstration Slide Rule Offered to Qualifying Educators

A giant Demonstration Slide Rule, available in three models, is being offered to qualifying educators. Also available is a set of Instruction Manuals and a course outline, offering a full range of teaching aids and professional literature to be used in conjunction with the Demonstration



Rule. The expert slide rule instruction manuals were written by Professor Maurice L. Hartung of the University of Chicago. The oversize slide rules are valuable aids in demonstrating problems to college classes, and serve a dual purpose in high schools by demonstrating problems and teaching the basics of slide rule technique. Each model is a complete and detailed king-size duplicate of a 10-inch all-metal Pickett slide rule, made to exact scale. It is easy to read and manipulate and its large size and Eye-Saver yellow color make it effective for demonstration. Pickett & Eckel, Inc., 1109 S. Fremont Ave., Alhambra, Calif.

For more details circle #739 on mailing card.

Non-Slippery Polish Prevents Discoloring Floors

Developed especially to prevent discoloring or darkening of vinyl, asphalt tile, vinyl asbestos, linoleum, terrazzo and rubber tile floors, Contrast is a non-slippery, wax-free floor polish. It is self-shining and has a water base which will not discolor even white floors, according to report. Its tough, glossy finish resists black marks and scuffs and will not water spot, powder or flake, making it ideal for heavy traffic areas. Huntington Laboratories, Inc., Huntington, Ind.

For more details circle #740 on mailing card.

Dollar Bill Changer for Vending Installations



Operating on electronic principles, the new Bill Changer accepts a one dollar bill, checks it, and in four seconds returns change, the combination of which is controlled by the operator. While accepting wrinkled, crumpled, stained or marked money, whether inserted upside down or

reversed, the machine will reject foreign currency or fake money of all kinds. The practical dollar Bill Changer facilitates the use of all vending equipment and eliminates the bother of change making by adjacent cashiers. A. B. T. Div., Atwood Vacuum Machine Co., Rockford, Ill.

For more details circle #741 on mailing card.

Literature and Services

• The 1960 catalog of electronic parts and equipment, including a complete line of radio and electronic kits for teaching purposes, is available from Allied Radio Corp., 100 N. Western Ave., Chicago 80. Over 40,000 items are listed in the 444-page catalog.

For more details circle #742 on mailing card.

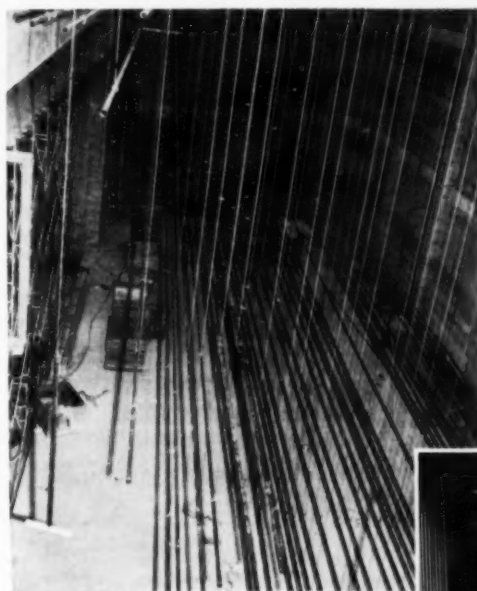
• Lab-Flo Service Fixtures are illustrated and described in a new catalog offered by T & S Brass & Bronze Works, Inc., 128 Magnolia Ave., Westbury, L.I., N.Y. Complete detail drawings are also available from the manufacturer.

For more details circle #743 on mailing card.

• The operation of the Keysort Selector is illustrated and described in a style sheet S-547R59 available from the Data Processing Div., Royal McBee Corp., Port Chester, N.Y. How the machine, which folds for storage in a desk drawer when not in use, selects Keysort cards relating to any desired classifications without disturbing the filed order is explained.

For more details circle #744 on mailing card.

(Continued on page 132)



A Maze of Ropes and Rigging Woven into Order and Efficiency by

CLANCY

Transforming miles of ropes, and hundreds of sheaves and pulleys into a practical stage takes a special combination of talents, plus a lot of technical experience. In over 75 years of manufacturing stage equipment and creating famous stages throughout the world, Clancy has become a theatrical institution. That's why so many architects and engineers put their backstage problems and planning into the capa-



— Eastman Kodak Recreation Center Auditorium.
Architects: Kodak Park Works Engineering Division.
Contractor: A. J. Hoffend & Sons, Rochester, N. Y.

ble hands of Clancy Stage Engineers.

Today, Clancy engineers — working with a nation-wide network of Preferred Dealers — plan and install stages of all sizes and types. When called upon early in the planning phase of theater or auditorium construction, Clancy engineers are doubly valuable — pointing out possible savings and eliminating problems before they can crop up.

Write for Free booklet: "How to Build a Modern Stage," and for the name of your nearest Clancy Preferred Dealer.

CREATORS OF FAMOUS STAGES FOR THE ENTERTAINMENT CAPITALS OF THE WORLD

J.R. Clancy, Inc.
Stage Consultants and Manufacturers
1020 WEST BELDEN AVENUE
SYRACUSE 4, N. Y.



**Across The Nation ...
Modern Laboratories Are
REMCO Equipped Throughout**



Insist on Remco design and craftsmanship that perform "Miracles in Metals". The proven advantages of modern steel laboratory furniture are at their best in Remco ... long-lasting durability, trouble-free maintenance,

permanent fit, maximum resistance to marks and chemicals ... and a wide choice of harmonious colors. Regardless of weather or hard usage, Remco's "Miracle in Metals" will outlast all other types of furniture. Through imaginative engineering and completely flexible facilities, Remco builds to far exceed standard specifications. And component designs permit endless floor and storage unit arrangements.



Insist on the finest steel laboratory equipment ... insist on Remco. The cost is no more (often less) than for comparable equipment of other materials and inferior construction. Get the facts before you specify.

MAIL THIS COUPON TODAY!

Reliance Engineering and Manufacturing Corp.,
101 New Laredo Highway, San Antonio, Texas

Please send me Remco catalog for:

- ☐ Lab furniture ☐ Dorm furniture
☐ Hospital Casework ☐ Patient wardrobes

Name _____

Firm or institution _____

Address _____

City _____ Zone _____ State _____

• The attractive, versatile **Dorm Line** by Simmons is pictured and described in a 16-page catalog just published by Simmons Company, Merchandise Mart, Chicago 54. Both built-in and free-standing equipment is included in the line which is constructed to stand up under rugged dormitory use. The simple lines will keep the furniture modern in appearance, and the modular construction permits flexibility in planning and arrangement. The line, available in various colors and finishes, includes built-in wardrobes, chests and desks; free-standing desks, dressers and accessories; chairs; tables; beds; mattresses; lounge furniture; bunks; and other equipment for every dormitory need. Construction details, materials, designs and colors are discussed in the booklet.

For more details circle #745 on mailing card.

• **Bulletin B-3232** describes the **Titusville Trojan 2-Pass Unit** for heating and power. Features illustrated in the four-page folder offered by Titusville Iron Works, Titusville, Pa., include complete wet back construction, ease of maintenance, large furnace volume and high thermal efficiency.

For more details circle #746 on mailing card.

• "New Sanymetal Integral Hinge Brackets" are described and pictured in a new eight-page booklet available from Sanymetal Products Co., Inc., 1696 Urbana Rd., Cleveland 12, Ohio. Pictorial and documentary evidence of the strength and long life of these hinge brackets for toilet compartment doors is given.

For more details circle #747 on mailing card.

• "Surface and Pendant Fluorescent Lighting By Lightolier" is illustrated and described in a 24-page catalog available from Lightolier Inc., 346 Claremont Ave., Jersey City, N.J. Three new lighting units are introduced and full specifications, including E.T.L. reports, lighting calculator charts and detailed drawings are given.

For more details circle #748 on mailing card.

• Available from Columbia Records Sales Corp., 799 Seventh Ave., New York 19, is a 26-page booklet providing "A Listing of Records for Schools, Universities and Libraries." Starting out with a discussion on "The Taste for Music," the catalog lists records under general heads such as Appreciation of Music, Social Studies, Language Arts, Literature, Health Education and Sports, Science, Personalities and Shows, with the listings under Appreciation of Music classified under nine headings.

For more details circle #749 on mailing card.

• **Bulletin No. 1001-0**, a 48-page catalog available from Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50, gives detailed information on the complete line of Ceco steel windows. Data on accompanying hardware, mechanical operators, casings and window trim are included.

For more details circle #750 on mailing card.

• Quantity recipes for the use of Kellogg's Corn Flake Crumbs for breading, crumbing, pie shells and the like, are presented in a folder entitled "Magic No. 2 for Quantity Service." Available from Kellogg Co., Battle Creek, Mich., the leaflet contains recipes for from 20 to 125 portions.

For more details circle #751 on mailing card.

• "Smoot-Holman Luminaires" are illustrated and described in the new eight-page catalog available from the Smoot-Holman Co., 321 Eucalyptus St., Inglewood, Calif. The correct lighting fixtures for school and college classrooms are discussed and specifications are given for each fixture.

For more details circle #752 on mailing card.

• Dr. Gustave Mathieu, Language Consultant, gives practical answers to teachers' questions about electronic teaching tools in his booklet "Have Language Lab: What Now?" (A Brief Guide to Effective Labmanship). The booklet, available from Magnetic Recording Industries, 126 Fifth Ave., New York 11, includes detailed explanations of basic principles and practical suggestions for designing and organizing laboratory programs.

For more details circle #753 on mailing card.

Suppliers' News

American Cleaning Equipment Corp., manufacturer of the Chicago line of heavy duty vacuum cleaning equipment, announces its move from 1600 S. Dearborn St., Chicago, to a new modern plant at 5024 N. Rose St., Schiller Park, Ill. All the newest production devices are incorporated into the plant which is designed with room for future expansion.

The merger of **Bell & Howell Co.**, 7100 McCormick Rd., Chicago 45, manufacturer of photographic equipment, and **Consolidated Electrodynamics Corp.**, Pasadena, Calif., manufacturer of electronic equipment, is announced. Under the merger agreement Consolidated Electrodynamics will become a subsidiary of Bell & Howell but will operate under its present name and with present management and personnel.

The Brunswick-Balke-Collender Co., 623 S. Wabash Ave., Chicago 5, manufacturer of school furniture and folding partitions, announces transfer of its folding partition manufacturing operations from Marion, Va., to its school equipment division factory at Kalamazoo, Mich., consolidating all school equipment manufacturing operations under one roof.

General Foods, Institutional Products Div., White Plains, N.Y., announces a financing program for the purchase of new hot beverage vending equipment. Six vending equipment manufacturers are presently participating with the company in the installment purchase plan available in the continental United States to vending operators using General Foods products.

The R. C. Musson Rubber Co., manufacturer of heavy duty rubber stair treads and rubber mats for institutional use, announces removal to its new modern factory and offices at 1320 Archwood Ave., Akron 6, Ohio.

Thonet Industries, Inc., One Park Ave., New York 16, manufacturer of quality institutional furniture, announces the opening of its new and expanded showroom at company headquarters.

INDEX TO ADVERTISEMENTS

USE THIS PAGE TO REQUEST PRODUCT INFORMATION

The index on this and the following page lists advertisements in this magazine alphabetically by manufacturer. For additional information about any product or service advertised, circle the manufacturer's key number on the detachable postcard and mail it. No postage is required.

Products described in the "What's New" pages of this magazine also have key numbers which appear in each instance following the description of the item. For more information about these items, circle the appropriate numbers on the postcard and mail it, without postage, to College & University Business.

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(We pay the postage)

I am interested in the items circled—

April, 1960

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CHICAGO 11, ILLINOIS

FIRST CLASS
PERMIT NO. 136
CHICAGO, ILL.





known fact: Any bucket of cleaner starts losing its power as soon as you put a dirty mop or sponge in it! . . . but now . . .



Announcing! the cleaner that gives you a full bucket's worth of cleaning power every time! **Johnson's FORWARD** . . . never suffers power fade-out. Even when it's loaded with dirt, you know its cleaning action isn't giving out! **Now**, try **FORWARD** and see what it means to get all the cleaning power you pay for! **Call** your local Johnson's Wax Distributor . . . or write **S. C. Johnson & Son, Inc., Service Products Division CUB4, Racine, Wisconsin.**

New Johnson's Forward a product of **JOHNSON'S WAX** service products division

Editorial Dept.,
University Microfilms,
313 N. First St.,
Ann Arbor 13, Mich.

Comfort for the Pride of Purdue



*New air-conditioned cultural center
is showplace of the campus*

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